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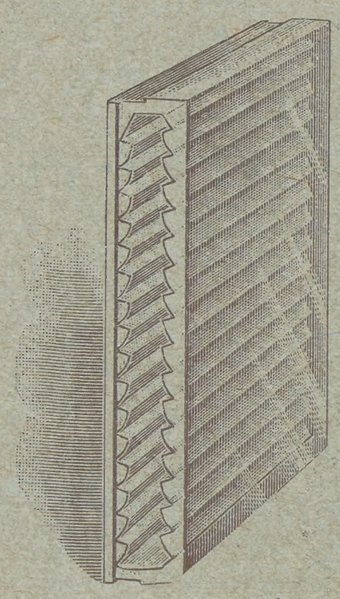

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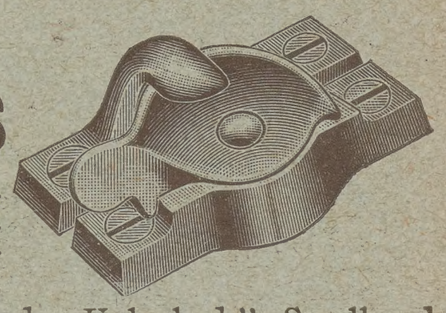

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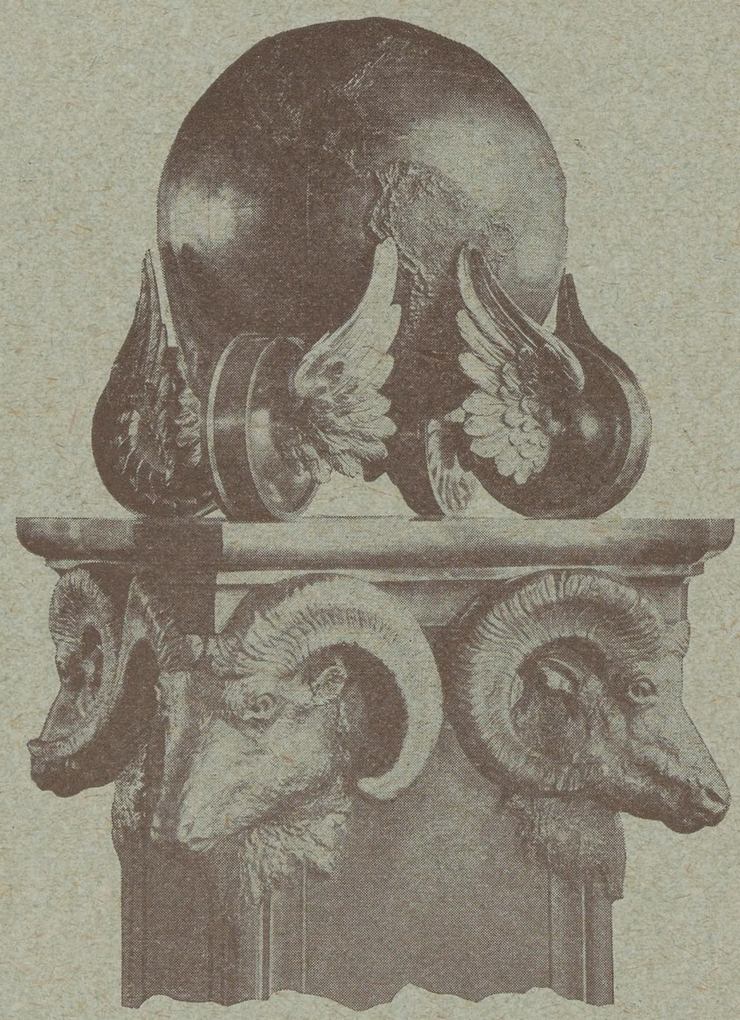

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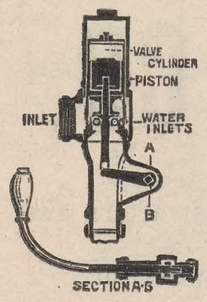

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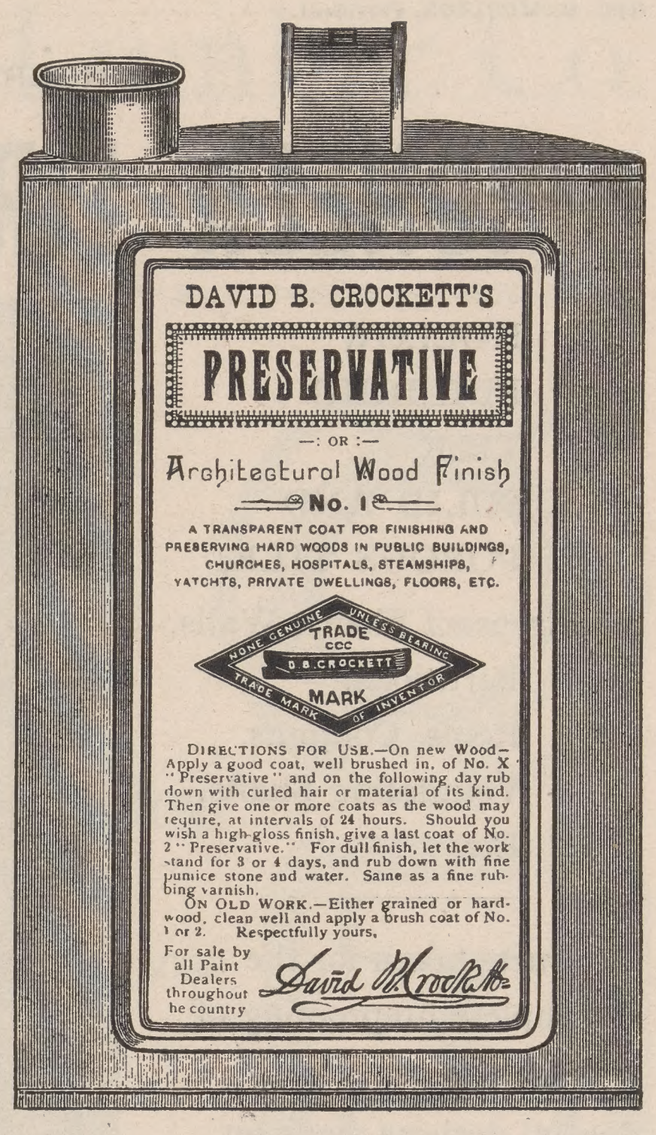

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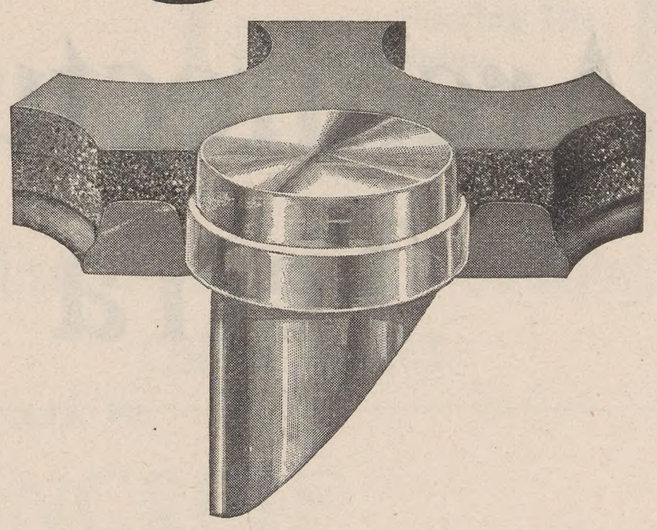

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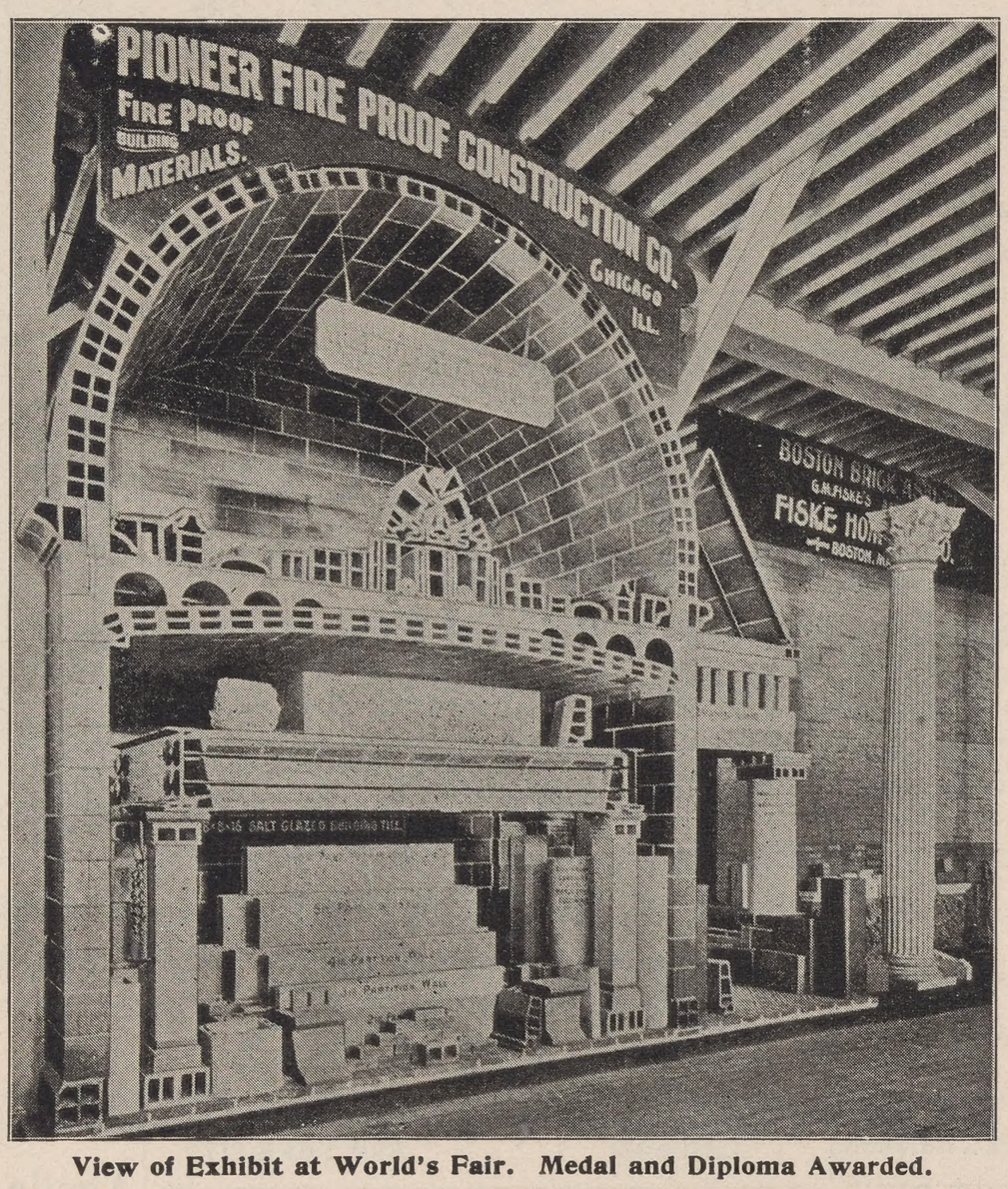

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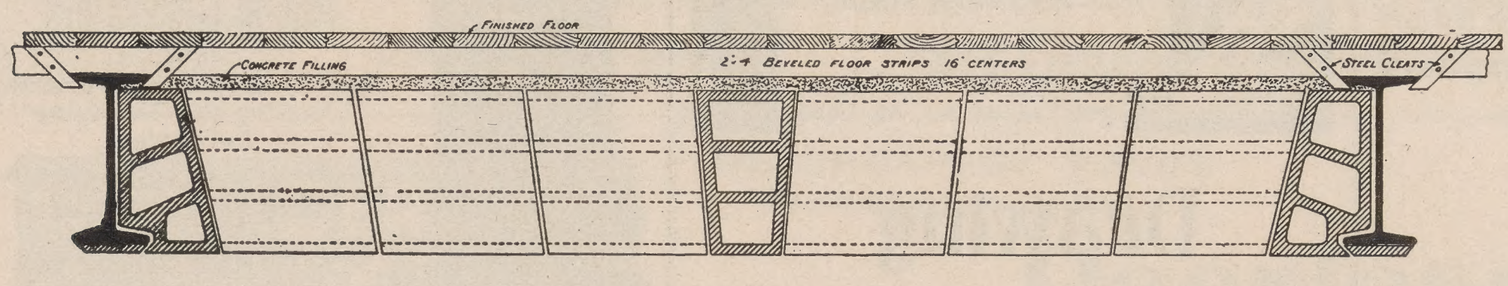

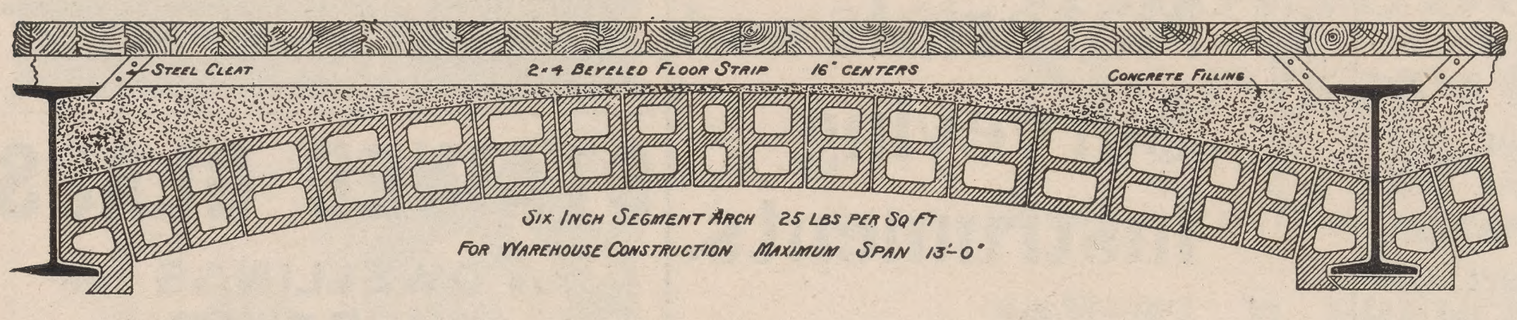

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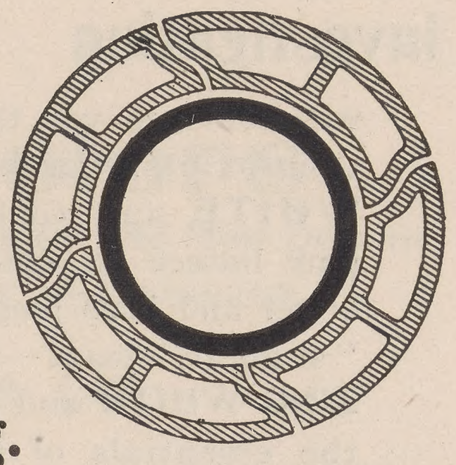

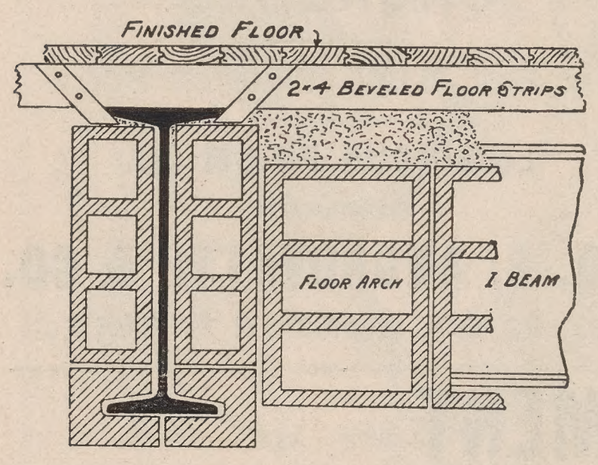

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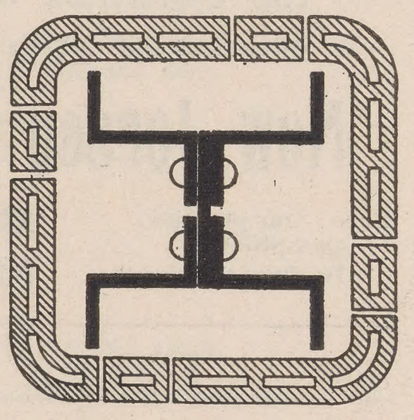

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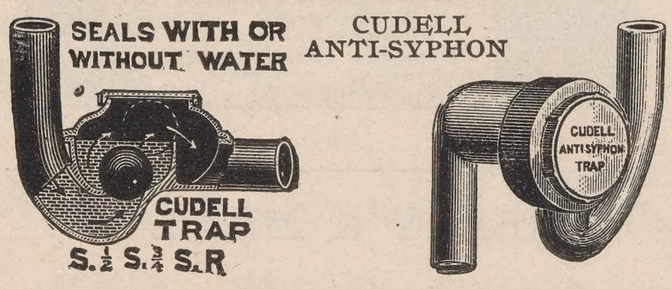

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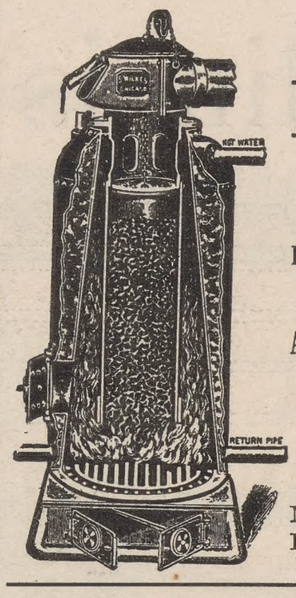

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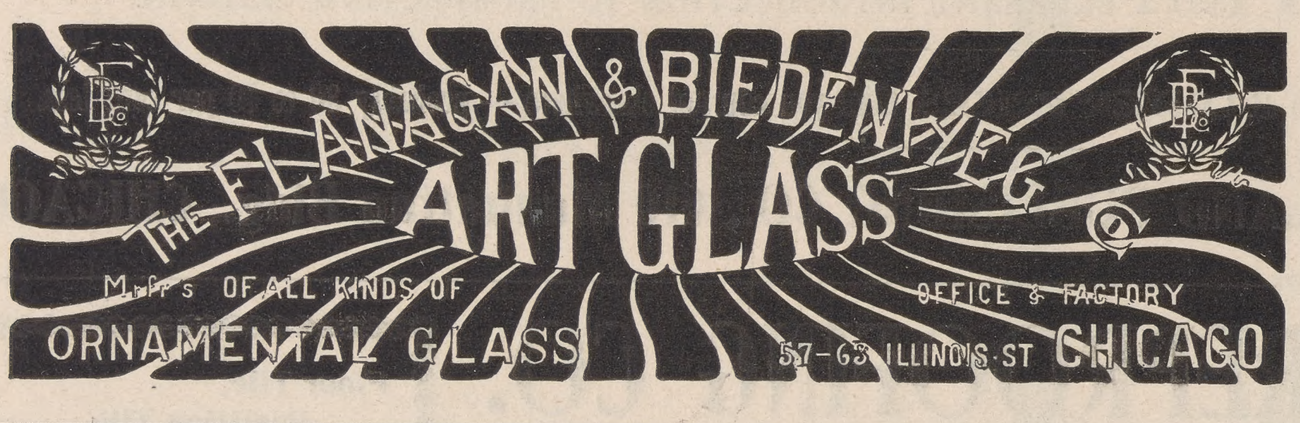

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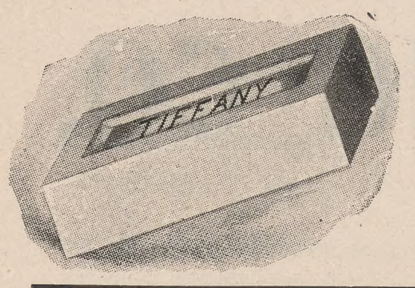

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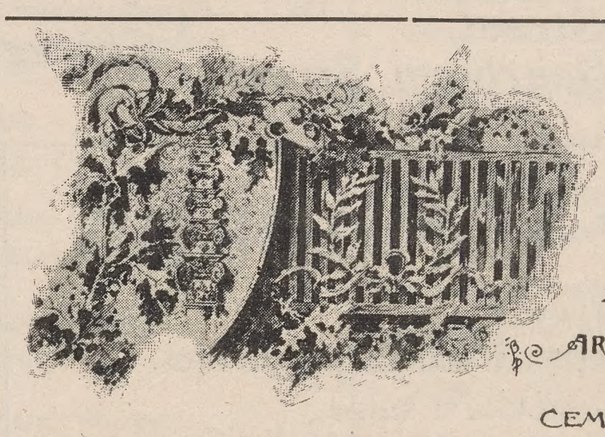

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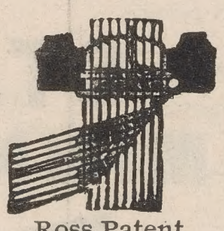

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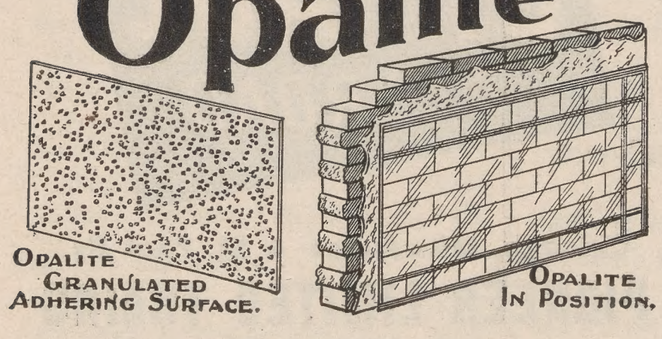

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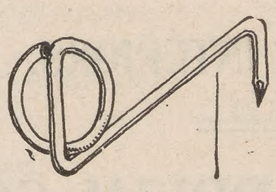

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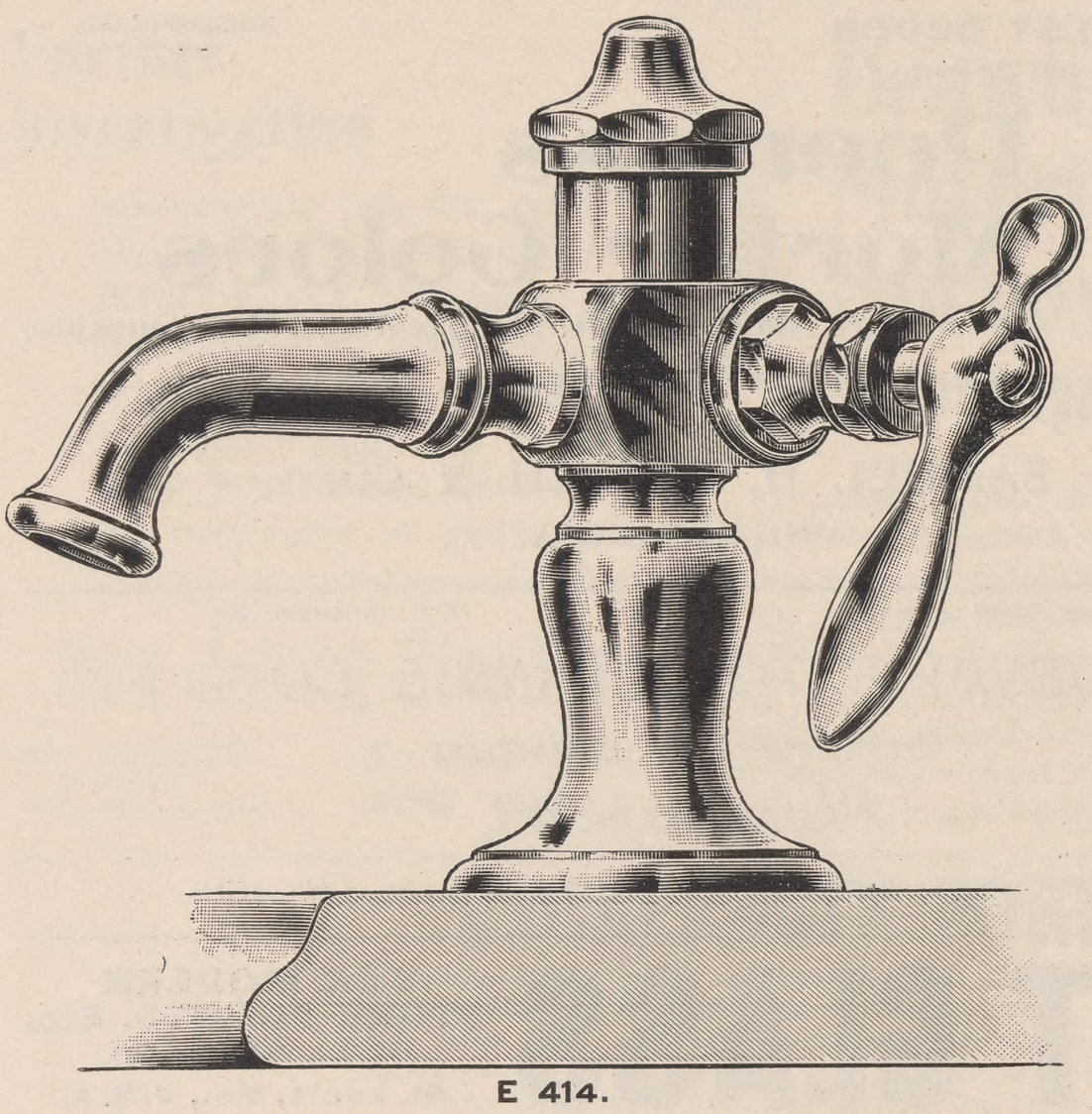

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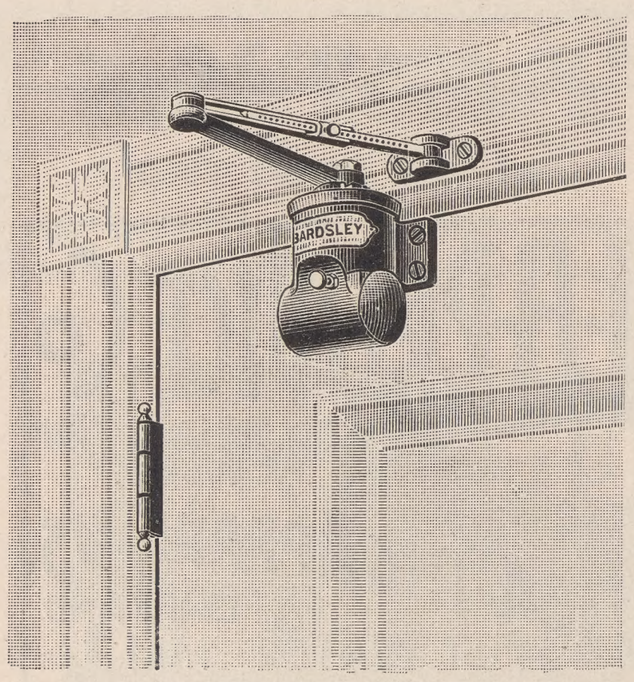

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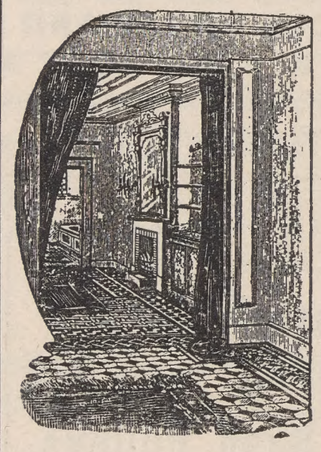

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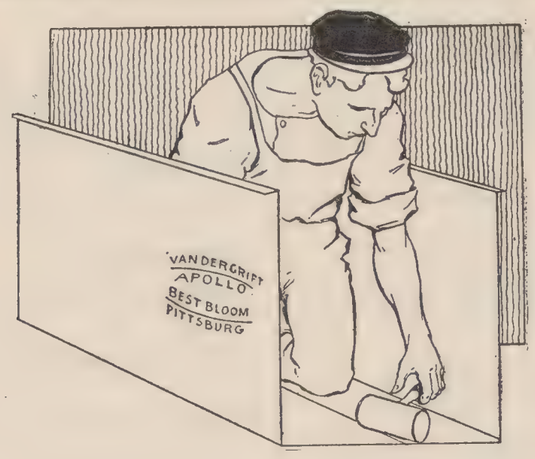

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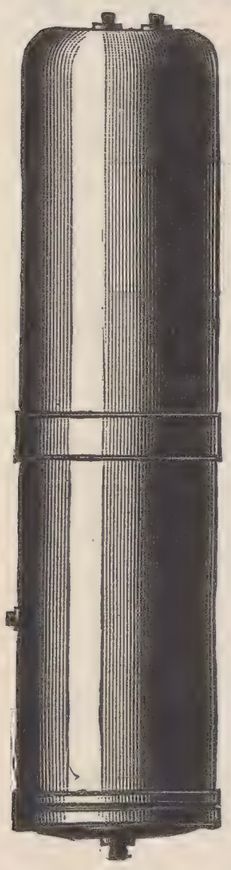

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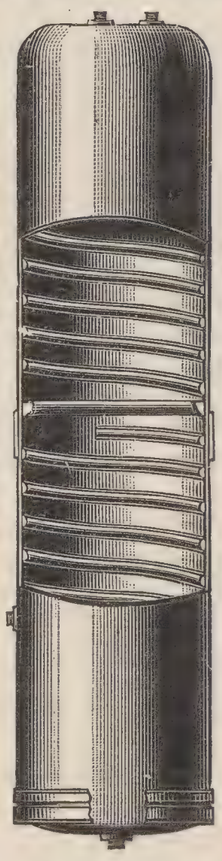

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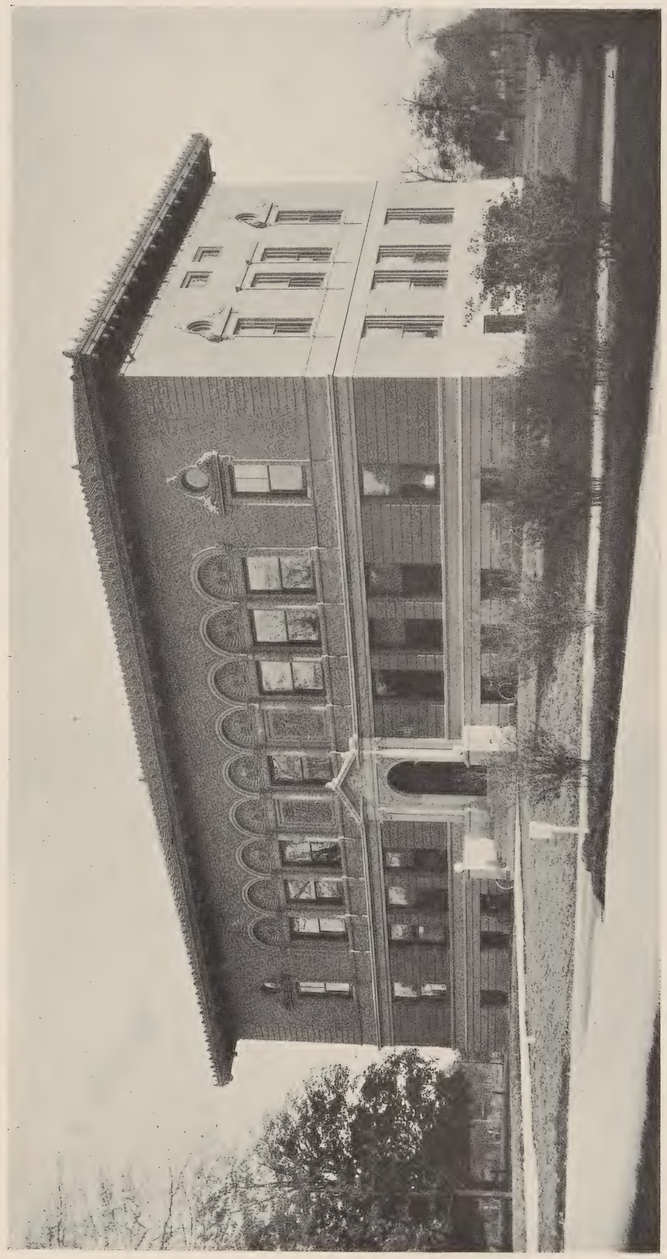

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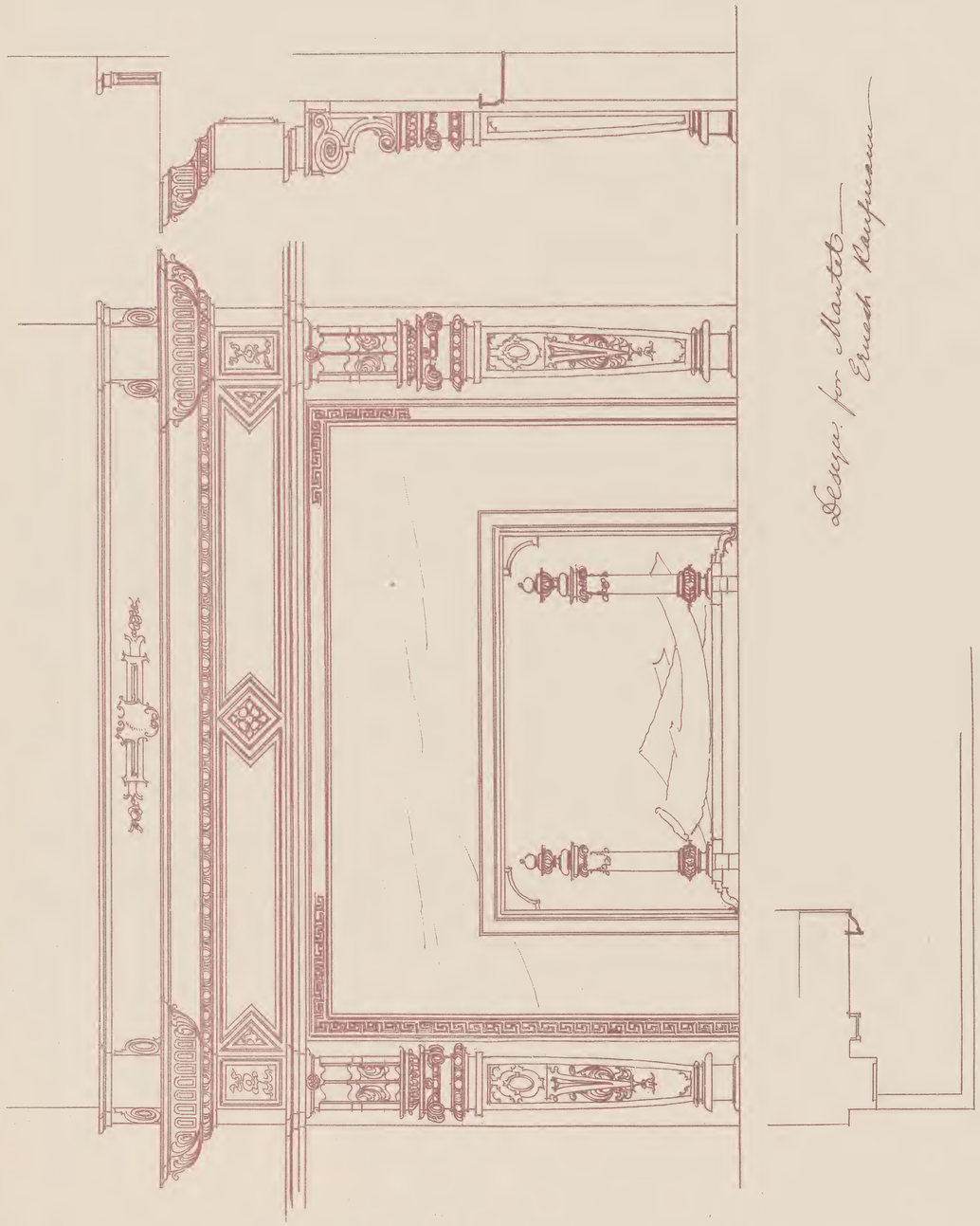
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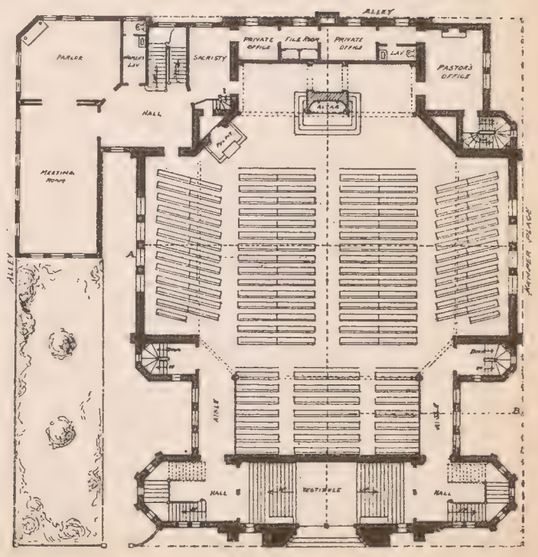

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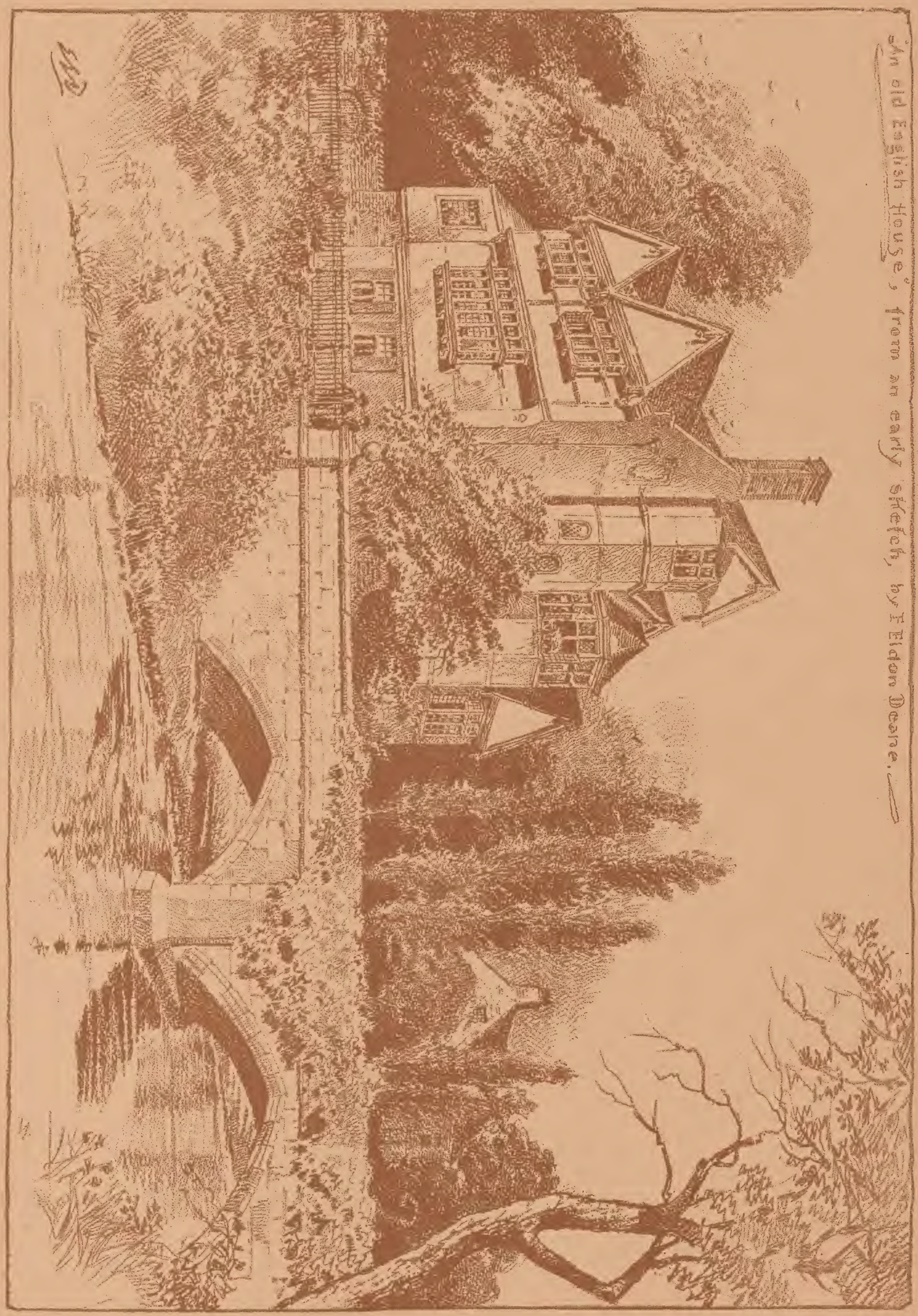
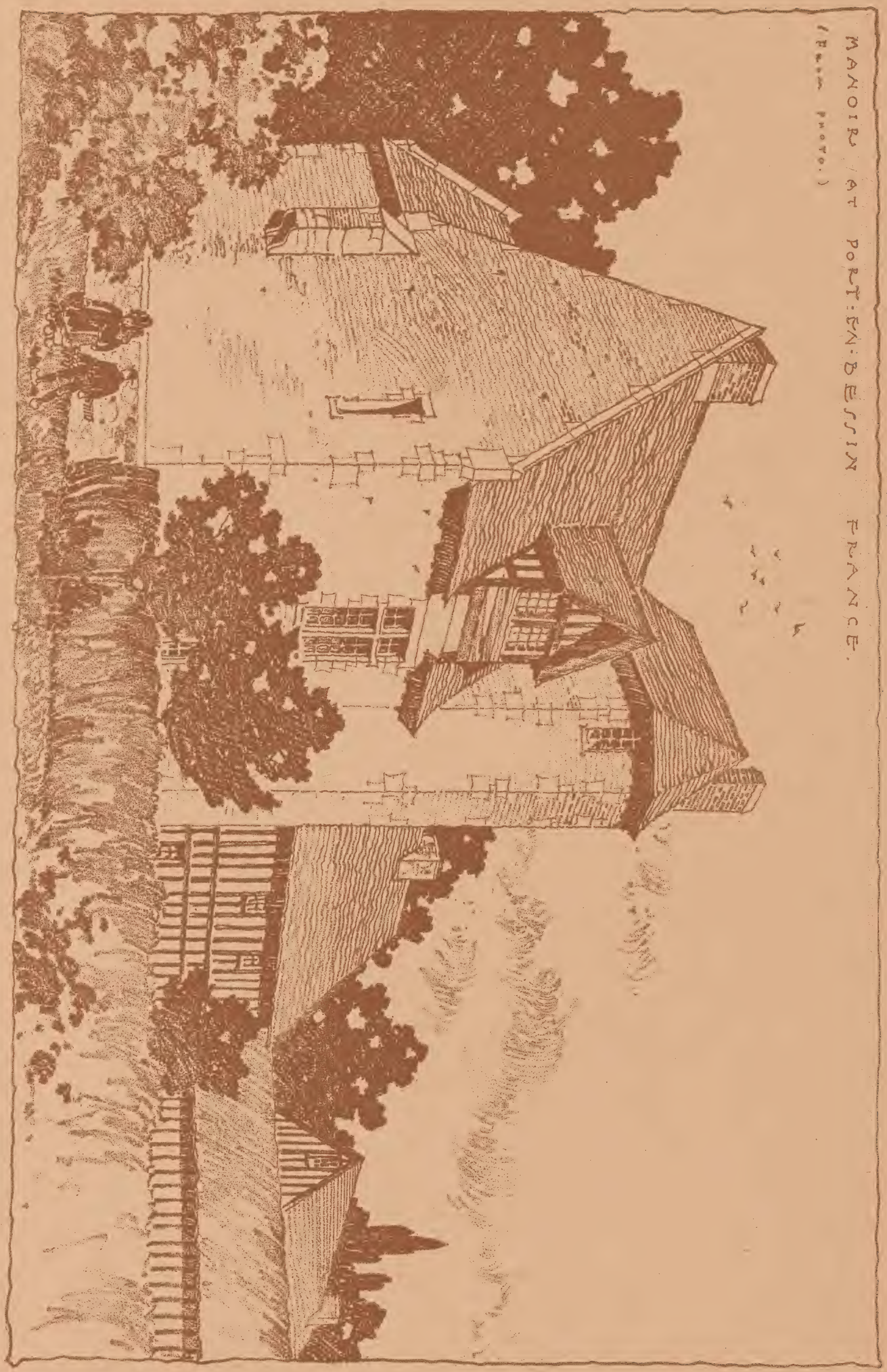


"An old English House," from an early sketch, by F. Eldon Deane.



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(From photo.)

THE INLAND ARCHITECT AND NEWS RECORD

Vol. XXXIII. FEBRUARY, 1899. No. 1

A Monthly Journal Devoted to

ARCHITECTURE,

CONSTRUCTION, DECORATION AND FURNISHING

IN THE WEST.

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Death of Architect W. C. Smith, at Manila.

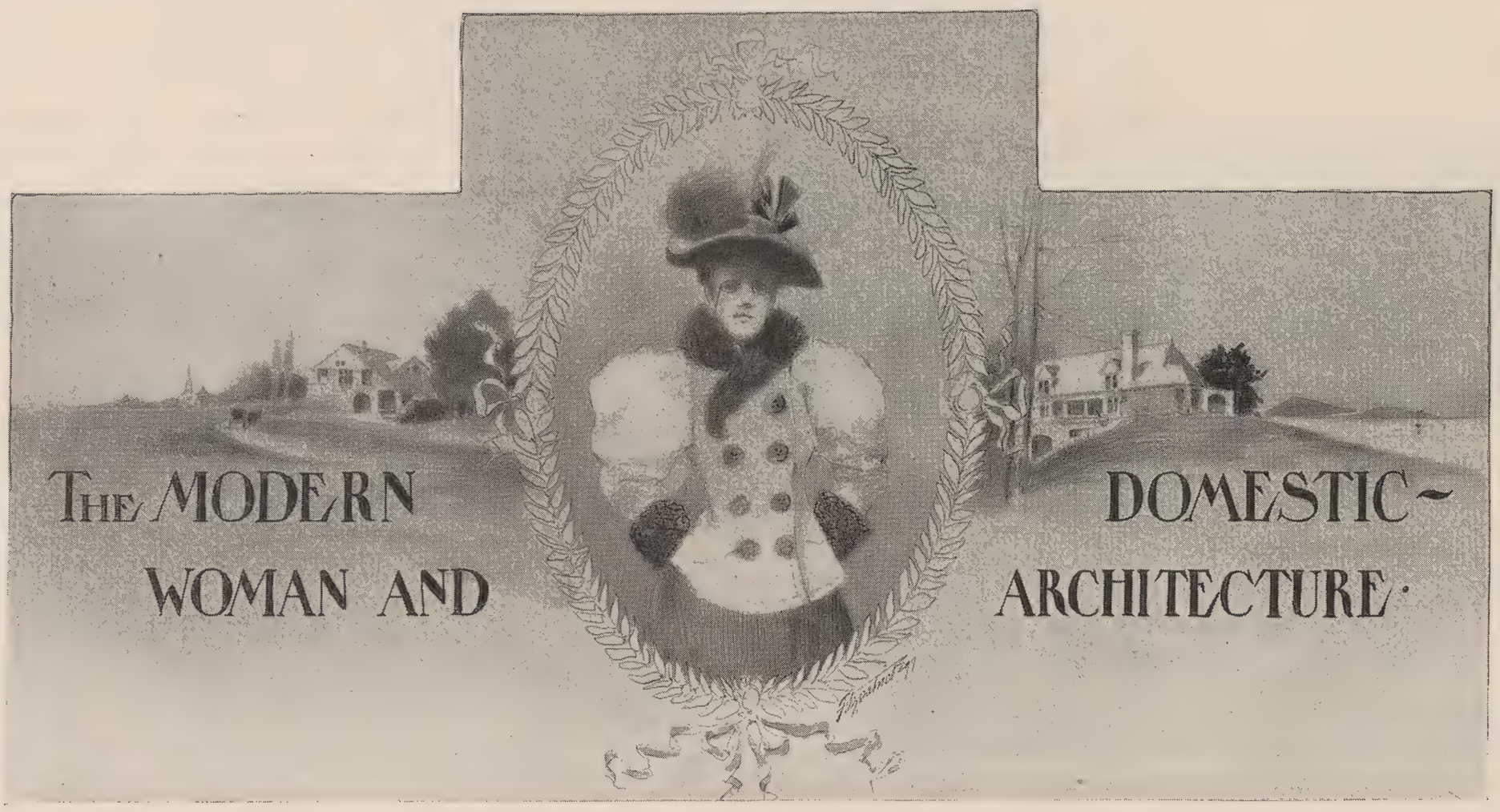
"Col. William C. Smith, 1st Tennessee, died of apoplexy at head of his command on firing line, February 5," is the dispatch from Manila received as we go to press. A biographical sketch of Mr. Smith, who was one of the most prominent architects in the South, will appear next month.

Convention National Association of Builders.

The tenth annual convention of the National Association of Builders, which will be held at Milwaukee on February 7, 8, 9 and 10, recalls the advance which has been gained in the business methods of building contractors since the organization of the association and which can be said to be traced directly, in a large degree at least, to the influence of that organization. The system by which local exchanges were organized in the different cities, and these in turn drawn together in one body, and through that guided and instructed so that each secured the benefit of the experiences and support of the whole, gives to this national association and those who have so long guided and promoted it a lasting credit and the gratitude of the building trades of the country.

Indications of a Large Increase in Building.

There is every indication that the investment of capital so long withheld from the lines of building will be resumed this year and that the early spring will see a greater demand for architectural services and building material than has been experienced in the past five years. No indication of this is stronger than the tendency to invest in all sorts of speculative enterprises and the lively demand for stocks of every description which marked the close of last year. This condition always succeeds monetary depression, and precedes the disposition for legitimate investments. Why the promoter should succeed in first inducing the investor to place his money in chimerical schemes cannot be explained except upon the great showman's conclusion that people enjoy being "humbugged" or the natural inclination of the race to speculate, but it has always been in order for the speculator to precede the legitimate investor. Thus we have today on one side the compressed air "boom" in which a young "Napoleon of Finance" seeks to recover his lost millions by inducing gullible people to invest in a mechanical scheme that is as perfectly feasible as the electric storage battery, but which will never come into general use because of inherent inconvenience and cost. But it will serve as a lever to raise a large amount of capital that will never bring a return in principal or interest to its investors. On the other hand, the demand of the people of a great city, that electric conductors for street cars shall be placed under ground is met by the corporation interested with the plea of impracticability simply because the initial installation would be costly and that the example would extend to other cities where they have similar conditions and interests. All this, however, is but a prelude to the legitimate investment of capital, which is largely in the direction of building enterprises, and will give to the closing year of the century a stability in financial investment that cannot be injured by any amount of stock manipulation.



BY F. W. FITZPATRICK, ARCHITECT.

WOMAN'S influence upon our domestic architecture has been and is most potent; every fiber of its texture, so to speak, is dependent upon her, and is woven for her; and I am sorry to say that that influence has not been for its good. How and why, I shall endeavor to explain by what follows.

That we have built some beautiful houses, I will gladly admit; that we have made wonderful progress in the arrangement of the internals in planning, and that we have more conveniences and accessories to comfort and health than any other nation indulges in or knows about, I also cheerfully grant, and I will even add that no other nation builds, proportionately to the number of its people, as many really comfortable homes as we do, nor has any other nation as nearly solved the problem of getting the maximum house for the minimum dollars as have the Americans. Yet, admitting all that, I still affirm that the great majority of our houses, particularly the larger, more pretentious and costlier, are very far from beautiful—putting it mildly—and that 99 per cent of our "flats" and "rows" are positively hideous.

The small frame and beautifully beshingled houses are trivial offenses. They are generally cozy, burn easily and will hardly become matters of history. It is the big fellows, the fine, palatial mansions costing anywhere from $20,000 to $100,000, and those other aforesaid flats and rows, costing as much and more, the capital sins in brick, those that are liable to stand for some time, that I would have you weep over and wear sackcloth and ashes for.

We all know that a nation's progress and civilization is gauged largely by its buildings. Are we willing to stand by that test, and and are we ready to place our general run of houses and our stereotyped flat in the balance to be weighed? Allah forbid!

Many causes are contributory to this deplorable condition of our domestic architecture.

The Government, from which all blessings should flow, does not offer us the brilliant examples of art that other governments place before their architects, and which act not only as prototypes for monumental structures, but as incentives to better work all along the line. Since about the time when our National Capitol and the Treasury and the Executive Mansion were erected, it is a lamentable fact that our Government buildings have been, with rare exceptions indeed, notably poor specimens of art. Our legislators have been so busy with the tariff, or with monetary issues, or what not, that, until recently, they have completely ignored the arts. True, they have appropriated vast sums of money for buildings; but it mattered not how those buildings were built, provided only they fulfilled the "practical" requirements of the service.

Another cause, and perhaps one of the principal ones, is that our nation is an essentially commercial one, and has not time to dally with anything that cannot be weighed by the dollar scale. And yet it did take such a lively interest in the Architectural Exhibition of 1893, the "World's Fair," that I am led to believe that, after all, the principal fault lies with the architects themselves. The people are willing to be cultivated, but cultivators are conspicuously lacking.

The average man does not consult an architect as he does his doctor or his lawyer; he directs him as he would his commonest employe, and seeks the one who will do the most work—irrespective of the quality of that work—for the least money, as he would give employment to a porter or a messenger.

But in this respect woman is the greater sinner, for a man may fall so far from grace as to state that he would like such or such a kind of house, and may even deign to discuss it with his architect; but woman, No! She would scorn the act; she *must have* a Queen Anne cottage or a Colonial mansion with a gable like Mrs. Smith's and chimneys like Mrs. Jones'. Her mind is positively made up, and there is no use trying to change it; she thinks she is right, and, alas! knows by long experience that she can find *some* architect who will be only too willing to do anything she wants, even to the building of a Grecian portico on a Chinese pagoda.

A friend of mine, who has not yet lost all artistic sentiment, did lose a very good commission a while ago because he positively declined to copy an old castle a lady had seen in Scotland, and wanted to duplicate its front upon a sixty-foot city lot. Imagine a turreted and battlemented stronghold that one naturally associates with oak forests, a moat, drawbridge and other such trimmings, transplanted into a city street, or, at least, only ten feet away from it, and with party walls!

Architecture is one of the grandest of professions, certainly the finest of the arts. Its practitioners are supposed to, or at least should, devote many years of their lives to study. Nature should have endowed them with her choicest gifts of taste, judgment and inspiration. They should know and feel, as far as domestic architecture is concerned, just what sort of a house is best suited to the wants of a client (when once those wants are thoroughly explained by the latter), and how that house, so arranged and within the limit of cost established by the client, should be built to harmonize in style, color and shape with its surroundings. City or country, elevated or upon a level, in a background of trees or bare and isolated, these conditions make wonderful differences in what an architect ought to put upon a lot. How few of the guild know or care anything about such considerations! Many enter our ranks for the same reason that many take to the ministry—because it is so easy to get in—and are no more fitted by nature for the work than most women are to follow the plow. These simply butcher a house—chop off so much at so much a pound.

Others there are who are fairly endowed by nature, but have been too anxious to begin real work, or were debarred by lack of means from devoting the necessary time to study and preparation—bright fellows, but full of misguided originality—and these,

without the slightest thought for the special requirements of a problem, or even without viewing the lot they are to build upon, want you to let them put up some pet *original* scheme—probably a wonderfully picturesque but awfully misplaced affair. Architects of this class are mostly to blame for the kaleidoscopic effects of our streets. I use the adjective reservedly and so far only as it refers to variety of colors, and not in any sense to any symmetry, for of the latter our streets are absolutely innocent. Where else than in our cities do you see twenty feet of yellow, then thirty of red, then brown and green, and then more yellow brick with black stripes?

The average man, who has acquired enough of this world's goods to justify him in building a home, is usually so busy trying to add to his store of aforesaid goods that he turns over all the responsibility and care of building that home to his "better half"—whether his absolute abdication is always voluntary or not is another matter; however that may be, it is Madame who "directs" the architect, keeps things stirred up, changes the location of closets, and piles up "extras" generally.

I have said that her sins were mostly of excusable ignorance; I will even add that woman knows less about architecture than she does about anything else. She has the greatest respect for the canons of religion, and bows most abjectly before those of fashion, even to the wearing of huge sleeves and hats, though she be small and stout, obeying the slightest mandate of the tyrant. Society's decrees and the observance of *les convenances* are also sacred to her, but in architecture she recognizes no laws; her will and her whims must reign supreme. She does not seem to know that she has no more right, legally or morally, to compel us to look upon absurdities and freaks in buildings than she has to ride over us upon the public thoroughfares. She never once stops to think that she is in duty bound, as a good citizen, to help beautify our streets and contribute to the general good by elevating the general taste. She firmly believes that it is altogether a matter of personal, untrained and unbridled taste, and in that notion is she most ably seconded by her so-called architect; and they together, alas! too frequently, erect such *original* structures as should, by the contemplation thereof, bring tears of anguish to the eyes of even a bronze lion!

Inside her house she shines more radiantly. She rarely affects any particular style of decoration, but goes in for dainty hangings, odd furniture and daring color effects that are generally happy, and she is as much of an improvement upon her grandmother in that direction as she is a retrograde from grandma's standard in that other direction—architecture. This gratifying condition of affairs in matters of internal decoration and furnishing is largely due to the various periodicals devoted to woman's interests. They have scattered the seeds of good taste more widely than has any other agency, and are indeed a power. May their good work go on! They have raised the standard of womanhood, have helped woman in domestic matters, have expounded matters of hygienic importance that she never dreamed of before, and have clearly demonstrated to her, in three chapters, just how she should manage a husband—why, they've "done her a heap o' good," and are now beginning her education in matters "decorative." I would but ask that they go a step farther and continue their good work in matters architectural. It is so much better and quicker to teach her that way than it is to let her drift, yes, merely drift, into the right channel, as she eventually will, of course, by the slow process of time.

Of recent years our Government has begun to mend its ways. It has given us a Congressional Library that can be reckoned among the gems of the world, and that goes very far as an *amende honorable* for having inflicted such structures as the Pension Bureau and the State, War and Navy buildings upon the country. Nor has it stopped upon the exterior of that building, either; it is actually having the interior decorated by real live artists—Will Low, Dodge, Melchers and others of similar caliber.

Two years ago, Congress surpassed itself by directing the Secretary of the Treasury to commission a special architect to design Chicago's new and mammoth post office building, thus giving the Government the same advantage of selection as has a private individual or company, and removing the work from the influence of the regular department, which influence has not heretofore, at least, been of the very best architecturally.

And now, under the wise interpretation given the Tarsney act by Secretary of the Treasury Gage, all the important government work will be competed for, under the same regulations as obtain in well managed and reputable competitions for private work, three competitions having demonstrated the superiority of the plan over past methods.

Our Government is usually slow in entering upon reforms and adopting new methods. Its present action was, no doubt, brought about by the general and popular tendency toward better buildings for state and commercial purposes, in which branches great strides onward have been taken during the past twenty years. Now, why should we lag behind in domestic architecture? Since woman is the especial beneficiary of that architecture, and since she has been its greatest tyrant heretofore, it is but meet that she mend her ways and become its benefactor, its disciple, and help in the direction of its more popular appreciation. To attain this end, as I have said before, I know of no quicker or better means than a crusade preached in type. But it cannot be through the daily press—that channel is clogged already with huge colored supplements portraying the doings of the "Yellow Kid of Hogan's Alley" and other such classic and highly intellectual matters. Nor can it be through the medium of the technical journals; our architectural periodicals rarely reach the outer world, the general public, and the general public being the loser thereby. Note, however, the tendency lately developed, and largely by the newspaper syndicate systems, to quote liberally from that technical press—a step in the right direction.

As for the stuff that is put upon the market in book shape, purporting to tell you all about building a house, and promising to "furnish you with forty beautiful designs to select from for one dollar, and the details and *guaranteed* estimates of any one of those forty designs for another dollar," why, ladies, such stuff is to be shunned as you would shun the presence of his cloven-hoofed highness himself!

Do not imagine that I am clamoring for houses built in the severest classic styles, nor for any arbitrary application of their fixed rules, nor for a servile following of the architecture of any particular period. We copy too much, as it is, prototypes that were the result of vastly different circumstances and conditions than we are confronted with today. Architecture, domestic or public, as we are practicing it now, is not a living fine art, and what we are doing cannot be compared, I frankly confess, with what other artists are doing in their several lines. We are not progressing, nor are we solving the new problems of *our* period. We are simply copying. Neither must you imagine that I belong to that altogether crazy crowd who are constantly craning their necks to catch the first glimpse of a dawning "American style." But I *do* want to see better taste displayed, particularly in our houses, flats and rows of tenements. Let the style be as composite as one can wish, let our young men throw in all the enthusiastic originality they are capable of; but no more of our galvanized iron (stone) fronts, our chipped-off sunset gables, our shingle arcades, and our intelligent and consistent way of slapping down a Swiss chalêt where a four-storied pressed-brick front would be more appropriate, and vice versa. Let us give our houses a little thought; first, as to their location, their requirements and their surroundings; then let them be designed chastely, consistently and so as not to offend good taste; then let us paint them, if they need painting, not with the sole object of using up all the paint left over from every other house, but so as to render them objects of pleasure to ourselves and to everyone who sees them—a something that blends and harmonizes with the surroundings—ideal homes, ornaments to our cities and steps toward that higher civilization we all claim to be striving for. And it is through woman's most potent influence—that influence that has sent men to war, urged them to great deeds and built up nations—that I expect the realization of these hopes. Let her urge us to make war upon and destroy vulgarism in buildings; may she spur us on to idealized designs, and may she build up beautiful homes and beautiful cities, thus adding jewels to the crown she will surely wear some day for the noble part she has played in the upbuilding of our nation.

THE board of directors of the American Institute of Architects is taking active measures to collect matter and data, at the Octagon House, which will be interesting to the profession at large. The Octagon House, corner Eighteenth street and New York avenue, Washington, D. C., the permanent headquarters of the Institute, will be open to members from 9 A.M. to 5 P.M. The secretary or his assistant will be on hand and will be pleased to aid visiting members in making their stay pleasant.

SOME PRINCIPLES OF FORM-DESIGN IN APPLIED ART.*

BY HUGH STANNUS, F.R.I.B.A.

MATERIALITY is the law which prescribes that the forms of objects shall be such as will best suit the materials of which they are intended to be made. Each material has its own special qualities — its capabilities and its limitations — and these should be compared and considered by the artist in every

FIG. 18. FIG. 19. FIG. 20.

design, so that he may glorify his material; not treating it as if he wished he had other material to work with, but making the most of the possibilities that he possesses. Materials should be worked in the manner that appears to be required by their characteristic qualities — i.e., in the manner in which it is easiest to produce the best effect or result, or as a craftsman in each material would bound his efforts in each by the technical limitations of each; and, though occasionally some work may be produced, for an exhibition, by a clever craftsman, which may violate all considerations of the characteristics of the material — yet the observer perceives that the principal and chief intention may be (though not admitted) — to produce a *tour de force* which shall surprise the ignorant and advertise the craftsman — rather than the artist's desire to make one more beautiful object in the world; and he will assess its value accordingly. The writer who pleads for sobriety in technic may be sneered at by the ambitious craftsman, who may further assert that he has used his material in a certain manner; and therefore he has demonstrated the possibility of thus working; but he may be reminded that, while all things may be lawful, some are not expedient, and that, just as there is only "one step from the sublime to the ridiculous," so vulgarity ever dogs the steps of the ambitious selfseeker.

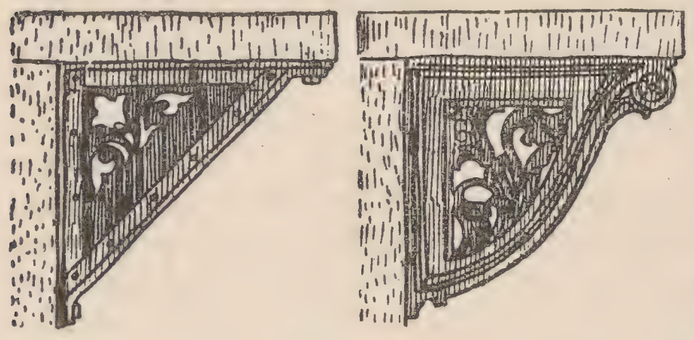


FIG. 21.

The characteristic qualities of each individual material must be studied. Detail which is suitable to *all* materials *equally*, is thereby unsuitable (in the highest and most artistic degree) to *any particular* one. Without pretending to give an exhaustive list, some of the more prominent qualities may be antithetically arranged, e. g.: largeness *vs.* smallness, of available pieces of the material; tenacity *vs.* brittleness, in the consistency of the material; ductility *vs.* rigidity, in the elasticity of the molecular arrangement; fibrosity *vs.* crystallarity, in the texture; hardness *vs.* softness, in the surface; fineness *vs.* coarseness, in the cohe-

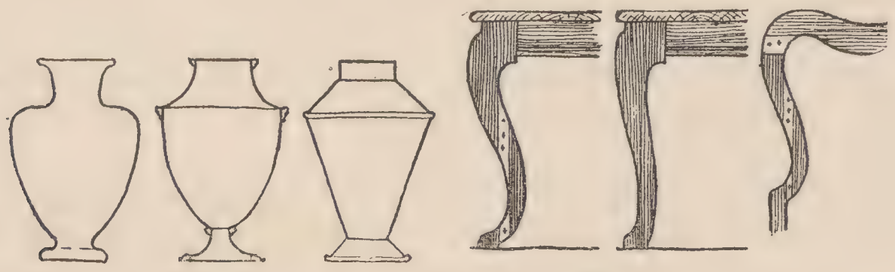


FIG. 22. FIG. 23.

sion of the particles; and opacity *vs.* translucency, in the diascopic quality of the material.

*Lectures delivered February 14, 21, 28 and March, 1898, before the Society of Arts, London, England. Commenced in December, 1898, number.

Largeness *vs.* Smallness, of the available size of the material, governs the design of stone walls; and the eye becomes accustomed to assess the bulk or thickness of the wall from observing the height of the courses. So, also, in brick walls, with their string courses and cornices; the dimensions of the brick (2⅞ by 4⅜ by 8⅞ inches) govern the masses of the design to a great extent. Also, in wooden doors, shutters, etc.: the breadth of the deal board governs the width between the framing styles.

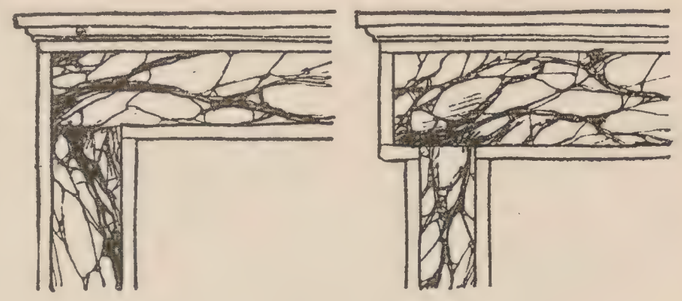


FIG. 24.

Tenacity *vs.* Brittleness, in the consistency of the material, governs the design of all isolated objects. In sculpture, the difference in the pose of the statue, between bronze and marble, is great. The bronze metal has great strength and tenacity; and poses are practicable in this material which are quite unsuitable to the more brittle marble. In marble, there is no equestrian statue without a tree stump or similar adjunct under the horse body, e.g., in the Borghese Centaur; while in bronze, the horse of Fig. 16 is supported on the legs only, and the horse of Fig. 10 is wholly supported by the two hind legs. There is no marble statue with an unsupported outstretched arm that is not fractured, e.g., in the apoxyomenos (i.e., the athlete who is scraping his arm with a strigil); while the arm of Cellini's bronze Perseus is injured; and other instances might be added. The adjuncts, which often tax the imagination and power of the artist, are: Tree stumps, drapery, animals, altars, blocks indeterminate, etc.; and the problem, when introduced, is how to "conceal the art," i.e., to endow them with some relation to the storiation of the figure or group, e.g., the tree in the Apollo Sauroctonos, the drapery on the Apollo Belvedere, the stag with the Huntress Diana, the horses of Fig. 12, etc. In isolated architectural supports: the Candelabrum (Fig. 18) in the Duomo at Pietrasanta (drawn by Mr. George Oakeshott), which was made of the local white marble by Stagio Stagi, exhibits thorough knowledge of the material, in the manner in which (in the profiling) the minimum thinness is kept sufficiently thick to resist sudden shocks or jars; and, for a similar reason, extreme differences of sectional area are avoided; thus the skotia moldings (immediately above and below the vase-like portion which is decorated by sphinxes and festoons) are one-half of the diameter of the projecting fillet (top member of the vase), i.e., the minimum area is not less than one-fourth of the maximum. In bronze the candelabrum might be designed, as shown in Fig. 19, with less bulk, and with greater variety of sectional area (thus the corresponding skotia molding is less than one-fourth of the diameter of the fillet, i.e., the minimum area is less than one-sixteenth of the maximum). In wrought iron: the candelabrum might be designed, as shown in Fig. 20, with much less bulk, and with still greater variety of sectional area. It will be further observed that while the marble example is solid, the bronze is perforated in the tripodal base, and the wrought iron (by reason of the thinness of the bars that are used for the scrolls) is still more open (skeleton-like). Another comparison is seen in Fig. 21, showing a bracket, supporting a shelf, in which the left-hand sketch shows a wrought-iron treatment; and the right-hand sketch shows cast iron. This bracket may be resolved into three factors, which are in two different kinds of strain: the horizontal top, and the vertical back against the wall, are in tensile strain; while the oblique front is in compressive strain. In arranging the strength of material to resist each kind of strain, it may be stated that wrought iron is strong against tensile strain, and is weak, and in danger of buckling, when used thin (as in this example) against compressive strain; the material is therefore narrow along the tensional top and back; but is broader along the compressed front. So also, in the right-hand sketch, the cast iron is (comparatively) thin along the compressed front; but is broader along the tensional top and back. The material is thus used, in either case, in the most advantageous manner.

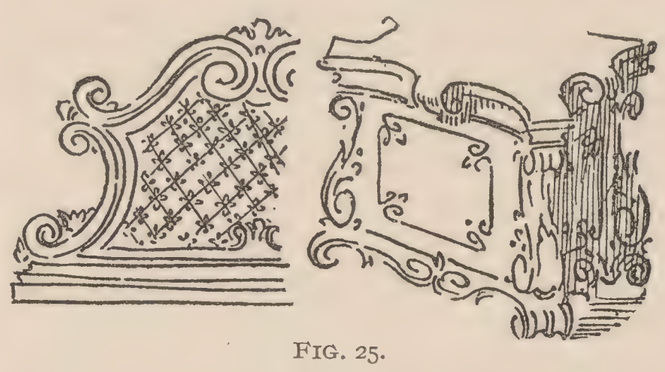


FIG. 25.

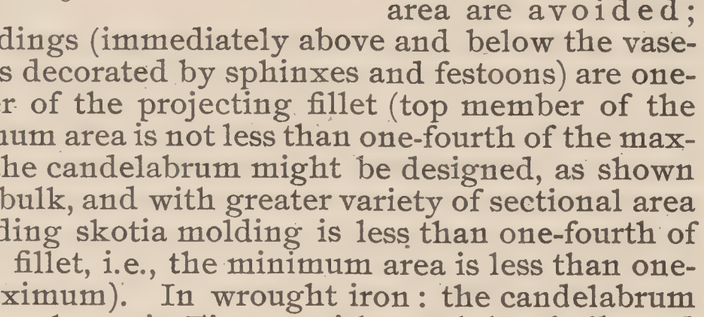


FIG. 26.

Ductility *vs.* Rigidity, in the elasticity of the molecular arrangement, governs the design of objects which are fashioned by the operation of hammering a metal plate. In Fig. 22 the three

sketches show a vase of the same capacity and general mass made in three different materials. The left-hand one is of clay, the center one is of silver, and the right-hand one is of sheet iron. These three sketches are typical of the three characteristic qualities of the plasticity of—the clay, the ductility of the sheet of silver, and the rigidity (inductility) of the iron plate. The clay receives shape at the hands of the potter, and the whole form is homogeneous. The silver is hammered out of flat sheets into the three portions (shoulder, panse and stem), and these are joined together by being soldered to cast-silver moldings (termed "mounts"), which are shown in the sketch at the junctions and at the lip and foot. The sheet iron (generally used with a film of tin on each surface in the manufacture of what is miscalled "tinware" and should be termed "tinned-ware") cannot be hammered into spherical forms except at great expenditure (though it may be stamped by the aid of machinery); hence it is principally used in making such large objects as have forms that are developable, i. e., can be made by bending in only one direction, e. g., the cylinder and the cone; and it will be observed that of the four portions of the vase in the right-hand sketch the neck is cylindrical, and the other three portions are conical.

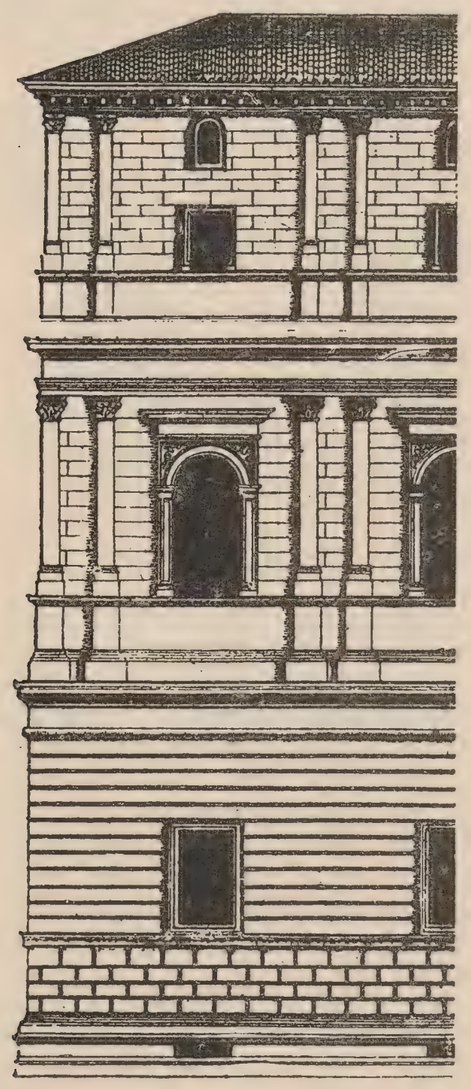


FIG. 27.

Fibrosity *vs.* Crystallarity in the texture governs the design of objects made of wood, etc. (as typical of fibrous materials), and of marble, etc. (as typical of crystalline materials). In the different kinds of wood fibrosity and lateral cohesion exist in varying degrees, the particular kind will therefore be chosen according to the kind and amount of strain to be borne. In most of the woods which are used in architecture and furniture the fibers run approximately straight and parallel. That object will be, therefore, most in accord with the characteristic qualities of the material most economical and most capable of bearing strain, in which the framing portions are designed on straight lines. In Fig. 23 the three sketches show objects made of wood. In the center sketch of the table leg it will be observed that some of the fibers of the wood run through uninterruptedly from top to bottom; and this leg will be much stronger than that of the left-hand sketch, the design of which is so much curved that all the fibers are cut across twice. So also in the right-hand sketch of a chair back, the curvature (so dear to the mind of a shop-walker) destroys the continuity of the fiber in three places. The place of fracture is marked by small dots in each case. The above remarks are not intended to condemn all curves in woodwork, but only to restrain curvature within such limits that in all curved supports some portion of the fiber shall run through from top to bottom without interruption. Nor are they intended to condemn the use of the curved braces that are necessary in ship construction, for which purpose the parts of trees that have grown in bent attitudes are selected. Crystallarity is the characteristic quality of marble, and renders it less capable of bearing the cross-strain of a horizontal beam than the compressive strain of a vertical support. In Fig. 24 the two sketches show mantelpieces made of veined marble (which is weaker than homogeneous marble) with white marble reveals and moldings. The left-hand sketch shows the beam as being the same bulk as the supports (and therefore less in strength because of the cross-strain); the beam should be broader while the support might be narrower. The right-hand sketch shows the mistake corrected; the support in compressive strain is decreased, but is yet sufficient for its load, and the beam in cross-strain is increased in bulk and is made longer in order that it may (theoretically) take some bearing from the adjacent wall and be better "bonded-in" to it.

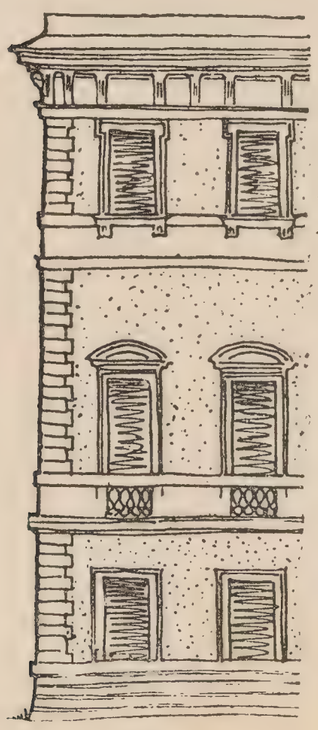


FIG. 28.

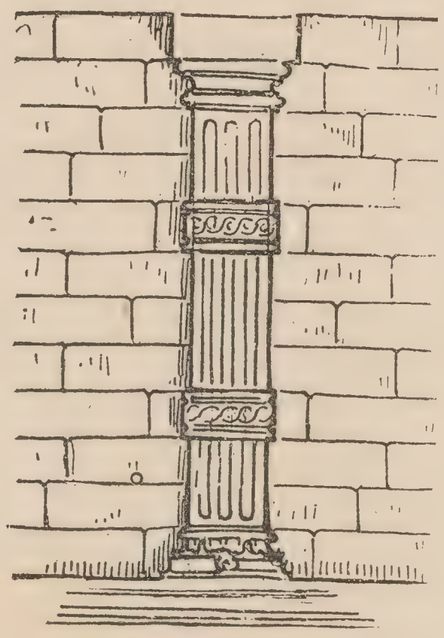


FIG. 29.

Hardness *vs.* Softness, like fineness *vs.* coarseness, in the surface of the material, governs the design of all objects that have corners, in positions where there is much traffic.

Translucency *vs.* Opacity has governed the profiling of the moldings in Greek architecture. Their profiles have resulted from the use of marble, and are essentially suitable for marble rather than stone in the thick cuspidate fillets (which would appear heavy in the opaque stone), and the deeply cut quirks (which were necessary to obtain the desired depth of shadow in the translucent marble).

FIG. 30.

Imperfections of the material can be and are often disguised by judicious design. Cast iron, in the process of cooling, sometimes twists and becomes slightly distorted. This departure from the intended form is much more apparent in straight than in curved lines. Hence, in cases where it is desired to save expense, the forms will be broken up into small curves, as shown in the sketches of the fire-back and the coil-case, in Fig. 25. Terra cotta is a material which (a), cannot be made in large pieces; and (b), may twist slightly in the drying. Hence the manner in which Godfrey Sykes designed the columns in the quadrangle at South Kensington — arranging projecting moldings at the joints and high-relief drums alternately with low-relief ones to prevent the eye running up the shaft — is worthy of all praise.

FIG. 31.

Rich material is often used in slabs or laminæ to cover masses made of poorer material. Examples are seen in the practice of veneering with marble or wood, and that of gilding with thin sheets of gold. This practice is, however, so often associated with attempts to deceive by unscrupulous people that it should be used only in such a manner that no deception is possible. Thus, in Fig. 26, the first two sketches show methods of applying thin slabs of marble (or the imitation of that material) to walls. The left-hand sketch shows the slabs, cut to the same size as stone blocks, and breaking joint in the same manner as the blocks are laid in the operation of building a wall. This may produce the impression that the wall is built of solid blocks of valuable marble, and it is directly conducive to deception. The center sketch shows the slabs cut to a large size and placed vertically (i. e., in such a manner as no wall is ever built) in narrow slabs, which are alternately reversed so that the veining or "pattern" of the marble is reciprocally matched; and the observer sees that they are veneers affixed to the building for beauty of color, and with no attempt to deceive (as has been eloquently demonstrated by Mr. Ruskin). The right-hand sketch shows a wooden door, the panel of which is covered with four pieces of veneer, reciprocally matched. When the veneers, either marble or wood, have the same "pattern" and are thus matched, then the observer perceives that they are contiguous slices cut from the same block, and not separate solid blocks.

FIG. 32.

Imitation in one material of the design in another must be avoided. Sometimes this has arisen from veneration of the deeds of ancestors, as in the Egyptian pylons, the Dorian cornice, the

Fig. 33.

Fig. 34.

Lykian toombs, or the Indian caves; sometimes from patriotic motives, as in the Swiss imitations of wooden architecture that are made in stone and brick; sometimes from vis-inertia and indolence to save the trouble of thinking, which reason or motive will be avoided by every true artist. Each material has its own individual beauty of color or texture, and to overlook this in order to make it simulate the treatment of some other is one of the surest means to attain to vulgarity.

Constructionality governs design, as it relates to the putting together or fastening together of the several portions of which an object is composed. The act of fastening together is termed construction. When any portion or feature is an integral part in the putting together, it is said to be constructional. And the artistic quality—of being designed in such a manner that the act or putting together is not hindered and the result of that act is not hidden—is termed constructionality.

The construction of any object may be: (a), acknowledged and glorified; (b), ignored; (c), supplanted; and (d), confused.

The acknowledgment is seen most clearly in architecture. The rustication of wall joints is one much-used method. It will be observed that when a stone block rests upon the whole of its under surface, the edges are liable to chip off. This is obviated by chamfering the edges, making grooves, with the result that the bearing surface is recessed a small distance, and the chipping off is rendered impossible. This grooving, as well as preventing the chipping off, gives an artistic quality to the face of the wall, and the observer assesses the thickness of the wall by the distance apart and the coarseness of the grooves. The wall of the lower stories of a building, having more weight to support than the wall of the upper stories, is made gradually thicker in proportion to the load upon it; and this fact may be shown by different degrees of coarseness in the rustication, as is shown (partially) in Fig. 27.

Fig. 35.

The string course has important functions in walls that (a) have floor beams resting upon them, or (b) are pierced with windows and have, therefore, alternate piers and voids. The stones of the course immediately under each story of floor beams should each be: long (for the purpose of spreading the bearing) and hard (that it may not break under the strain). They will come through to the face of the wall, and they are generally designed to project a few inches in front of the general surface, and are often decorated by means of carved mouldings upon them. The stones of the course that is level with the window sills will similarly distribute the weight over a wider bearing surface when long and hard than if they were similar to the ordinary stones of the wall; and they also are designed to project, and decorated by mouldings. Both of these string courses—the floor string and the pier string—are shown in Fig. 27, and also (more clearly) in Fig. 28. The annulet on the shaft of engaged columns and pilasters has constructional value. The piers of the nave arches in the Early English period (which were designed as if bundles of columns) are connected or bound together (in appearance, and often in reality) by annulets. Those shown in Fig. 29 have the effect of making the pilasters more an integral portion of the wall than if it were merely placed against the wall without them. The vaulting shafts in our noble Gothic cathedrals are admirable examples of constructionality. Each of the two sketches in Fig. 30 shows the interior of a nave. The right-hand sketch shows a wooden ceiling (under the roof), and in this the row of ceiling joists is distributed (at short intervals) along the string at the top of the wall; and there is no special need for making (or suggesting) that any one part along the wall needs to be stronger than any other; the design is, therefore, perfectly consistent. The left-hand sketch shows a stone vault in which the vaulting ribs are gathered together to spring in groups from particular places between the clearstory windows, and there is, therefore, a need that the wall should be (and appear) stronger under these places; and hence the design of these vaulting shafts.

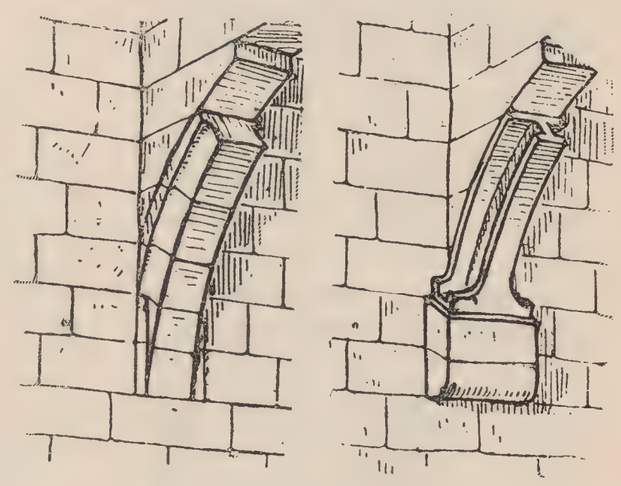


Fig. 37.

Disregard of constructionality is shown in many objects, but one example may be given in the framed paneling, which is sometimes attempted with flush panels. This method does not acknowledge the styles, and generally, when the wood shrinks and the joints open, it exhibits the faultiness of the design.

Supplanting the construction is generally perpetrated by those possessing more cleverness of imitation than logicality of perception. In this breach of good taste the artist, instead of decorating an object with some feature that he has chosen, substitutes his feature for the object. Thus in Fig. 31 a salad bowl is shown as if composed of natural cabbage leaves. There is no objection to natural leaves as a decoration to a bowl, but in this example the leaves are the bowl, i. e., they have supplanted the object they were intended to decorate. The sketch in Fig. 32 suggests how they may be used without destroying the bowl. In Fig. 33 the left-hand sketch shows the arm of a chair at South Kensington Museum, in which the dolphin is the arm; and the right-hand sketch shows the fish as "decorating" the arm. In Fig. 34 the harp (taken from the Irish quartering of the arms of the United Kingdom) is designed, as shown in the left-hand sketch, in such a manner that the strings must be screwed into the lower edge of the wing feathers of a Victory terminal figure; and in the right-hand sketch the figure is shown, not as supplanting but as decorating the harp frame. Perhaps, however, the most interesting examples are seen in the two Figs. 35 and 36, in one of which a nautilus shell (somewhat altered) serves as the lip-spout of the ewer; and in the other a sitting swan discharges the water between its wings, and (by obligingly keeping tight hold of some leaves in its beak) serves the function of a handle by its neck.

In the change of the materials of which any constructional feature is made, there is always a danger in applying the same section or the same decoration to both materials. The student will be on safer ground if he or she change the treatment at the change of material. In a well-known church in South London there are wooden ribs which abut against stone ones, and the rib molding is carried through both without any break of treatment (in section or otherwise). In Fig. 37 the left-hand sketch shows a stone rib springing from a stone wall, and supporting a small transverse stone wall, and in the right-hand sketch (which shows an iron rib resting on a stone corbel, for performing the same duty) the change of material is emphasized, and the characteristic quality of each when in construction is thereby preserved.

Fig. 36.

PAINTS IN ARCHITECTURE.—I.

THE province of paint in architecture is to introduce cheaply the element of color, to aid in decorative effect, and to increase the durability of materials. Generally speaking, the last-named is the most important function; but the skill of the manufacturers has produced paints comprising high protective value, and beauty and purity of color.

No matter what the original beauty and brilliancy of a paint, if it be not durable in both color and material it is unfit for use in architectural work. The aniline dyes, for example, offer a bewildering profusion of exquisite tones and hues, but their evanescence forbids their use. Some pigments also darken on exposure to the gases of the atmosphere, and in proportion as they are thus affected they are unsuitable for use where the color scheme is of importance. Others, through chemical instability or other inherent qualities, are undurable in material and soon fail in their office of protection. Such paints may have other qualities which render them desirable, but their instability is a defect to be guarded against or corrected.

The basic elements of durability in any paint are the durability of its component pigments and menstruum. The only available menstruum that is durable is linseed oil. Any paint, no matter how durable the other components, ceases to protect when the oil

is gone from it; hence with pigments of equal durability, the one carrying the largest proportion of oil makes the most durable paint.

This is the foundation fact upon which paint manufacturers build when they make combination paints of zinc white incorporated with white lead and barytes or other inert substances. The zinc white necessitates in the combination a greatly increased percentage of oil, while the proportion of lead, with its tendency to darken, to affect sensitive colors and to "chalk off," is reduced, and its faults are minimized.

Many architects are accustomed to use pure zinc for inside work and to specify a certain proportion of zinc in the finishing coat for outside work. Experiment has shown that for the latter a combination containing zinc used for all the coats yields far more satisfactory and durable work.

Pure lead has a great reputation for "priming"; but in this case, since it is used with a great excess of oil to fill the pores of the wood, it is more properly to be regarded as a liquid filler than as a paint, and the combination paints similarly diluted would serve the same purpose. CHARLES JOURDAIN.

ANNUAL EXHIBITION CHICAGO ARCHITECTURAL CLUB.

THE twelfth annual exhibition of the Chicago Architectural Club, of works of architecture and the allied fine arts, will be held at the Art Institute, Chicago, under the auspices of the Chicago Architectural Club, from Tuesday, March 28, to Sunday, April 16, 1899.

This exhibition of original works, not previously shown in Chicago, will include architectural drawings and sketches in plan elevation, section, detail and perspective in all renderings; projects for public and monumental work; interior decorations and furnishings (sketches and samples); architectural and decorative glass, mosaic and metal work; sculpture — architectural and decorative — models, etc.; landscape architecture.

CALENDAR.

Entry blanks returnable Wednesday, February 15, 1899.
Last day for reception of exhibits, Saturday, March 11, 5 P.M.
Press view, Monday, March 27, 10 A.M. to 4 P.M.
Opening reception, Tuesday, March 28, 8 to 11 P.M.
Public exhibition, Wednesday, March 29, to Sunday, April 16, inclusive. Hours, 9 A.M. to 5 P.M. Sundays, 1 to 5 P.M.
Exhibits discharged Monday, April 17.

Attached find entry blank, which kindly fill out and return not later than Wednesday, February 15, 1899, to the Exhibition Committee, Henry W. Tomlinson, chairman, Art Institute, Chicago. Also find shipping blanks to be displayed on the outside of all packages. The identification blanks must be filled out and secured to the back of each article contributed. More blanks may be had on application.

Exhibits addressed to the Chicago Architectural Club will be received at the basement of the Art Institute not later than 5 P.M. Saturday, March 11, 1899. Carriage charges to be paid both ways by the exhibitor (except from the cities and under the conditions named below).

All drawings must be framed or mounted. The omission of glass is requested on exhibits over 2 by 3 feet.

All accepted exhibits must remain until the close of the exhibition.

No exhibits are to be offered for sale during the exhibition.

The exhibition will be held in the thoroughly fireproof galleries of the Art Institute. The Club does not insure the exhibits.

All handling, repacking, etc., will be done by experienced men, and the greatest care will be taken of all exhibits entered, but the Club will not be responsible for accidents.

An illustrated catalogue will be issued, for which we reserve the right to reproduce any exhibit, unless specially requested not to do so.

Such works as are selected from this exhibition by the juries of the St. Louis and Boston Architectural Clubs (who will hold exhibitions in the order named, following the close of this one), will be delivered direct to such exhibitions when the consent of the exhibitor is expressed on the entry and identification blanks.

Arrangements have been made with the following firms in the cities mentioned below for collecting and returning exhibits, free of charge to the owner. Upon receipt of the attached entry blank, not later than February 15, the Club will notify intending exhibitors of the day and hour when exhibits will be called for, and they must be ready at such time without fail:

New York — Frederick Keppel & Co., 20 East Sixteenth street; Philadelphia — Wright, Tyndale & Van Roden, 1212 Chestnut street; Boston — Doll & Richards, 2 Park place; Cleveland — (collector will be announced later); Detroit — E. Schilling, 47-48 Peninsular Bank building; St. Louis — Noonan & Kocian, 617 Locust street.

Jury of Admission and Hanging Committee — Dwight Heald Perkins, George R. Dean, Frank W. Handy, Robert C. Spencer, Jr., Howard V. D. Shaw, Alfred H. Granger, Irving K. Pond.

Exhibition Committee — Henry W. Tomlinson, chairman; H. Von Holst, secretary; August C. Wilmanns, treasurer; Birch Burdette Long, Clarence Hatzfeld, Charles A. Carr, William Eggebrecht.

THE BROOKLYN INSTITUTE OF ARTS AND SCIENCES.

AN important new movement has been set on foot in the Department of Architecture of the Brooklyn Institute of Arts and Sciences, looking toward the expansion of the department on general lines as distinguished from the more professional aspects of architecture with which it has been chiefly concerned. The Brooklyn Institute, with a membership of between 5,000 and 6,000 persons, is one of the most remarkable institutions in the country. Its work is chiefly concerned with adult education on popular lines, and its large membership and rapid development are eloquent testimony to its success. The various departments within the Institute form independent societies with independent organization, and are encouraged and aided by the Institute in every useful undertaking.

It has been felt in the Department of Architecture that the scope of that department was more immediately concerned with the broader public, of which the membership of the Institute is chiefly composed, than with the professional phases of architecture, and at a recent meeting of the executive committee of the department, this view was formulated in the following report, which has been presented to the council, the general advisory body of the Institute:

To the Council of the Brooklyn Institute:

At a recent meeting of the executive committee of this department, the relationship of the department to the Institute and the scope of its possible influences were carefully and fully considered. The president pointed out that its present membership as given in the Year Book is 268. Of these, twenty-six are architects. The department in the past has undertaken to develop the professional aspects of architecture more fully than its relationship to the general public, although the architects have always been in the minority in the membership, and are now very much so, notwithstanding that the list includes most of the representative architects living in Brooklyn. The members of the architectural profession in any city necessarily form a small proportion of its citizens, and it appears obvious from the figures just quoted that the work of the department needs to be developed on a broader and more general basis than heretofore in order to pursue the very valuable work that necessarily belongs to it. Moreover, the professional side of architecture in Brooklyn is now so ably and so admirably represented by the Brooklyn Chapter of the American Institute of Architects that professional lines could not be developed without coming in conflict with that professional organization, and thus entailing rivalry that would be helpful to no one, and decidedly injurious to the Institute.

It was considered advisable, therefore, to establish a new series of committees, which, while not conflicting with the present standing committees of the department, would not only represent the more general aspects of architecture, but which would give immediate strength to the department by greatly increasing its membership.

Architecture is an art and a science that touches everyone in many ways. It is a subject in which there is a profound popular ignorance and in which there is urgent necessity for a wide dissemination of information. The clergy are interested in its ecclesiastical side, and more than any other body of our citizens are directly and personally responsible for the erection of many of our most important buildings. The householder is interested in the construction of his dwelling; the storekeeper in the erection of his shop or office building. The women are interested not only in their houses and their arrangement, but also in their decoration and furniture. Many people are legitimately interested in the public aspects of our cities, in the location and arrangement of our parks and gardens, in the adornment of our streets and squares. And still others are interested in that most important of municipal problems, better houses for the people, a problem everyone feels and for which so few can do anything. All these are general topics in architecture, and all have a bearing that this department in this great educational institution cannot afford to ignore.

It was proposed, therefore, while not neglecting the professional side of architecture, nor ignoring such professional problems as might come before it, that the department should at once organize committees in these general subjects, with the thought of interesting a large number of people in the work of the department. It was further considered advisable to enlist the women members of the Institute in this new work. It was voted, thereupon, to establish committees on the following subjects: Committee on church architecture; committee on better homes (domestic architecture); committee on commercial architecture (shops, stores, etc.); committee on public decoration; committee on parks and gardens; committee on household decoration; committee on sanitation. These committees are, in each case, to be composed of men and women directly interested in these special topics, and who recognize the value of diffusing correct ideas and information concerning them throughout the community. The first work of such committees would be to bring together such members of the Institute and those outside it who are interested in these subjects. The general plan of work of the Institute for the current year being now well under way, it could not be possible, perhaps, to attempt, this year, anything in the nature of public meetings or other exercises involving the department or the Institute in expense; but it was proposed to hold meetings of these committees to which others might be invited, and it was presumed that the Institute would, if requested to do so, provide places for such meetings. It was hoped that by organizing this new work this year it would be possible to organize the more general work of the department next year with a programme commensurate with the importance of this new undertaking.

At the meeting at which these matters were considered this general scheme was adopted, and the president was authorized to report it to the council, in order to have the sanction and coöperation of that body in this new undertaking. This report is, therefore, submitted in compliance with the direction of the executive committee. Respectfully, BARR FERREE, *President.*

The significance of the movement outlined in this report can hardly be overestimated. Not only does it mean the great development of the department of architecture on the broad lines on which the Institute itself has been founded, but it also means the speedy creation of a general society of friends of architecture which will be unique among the art organizations of the country, most of the architectural societies in America being either limited to architects or to artists in conjunction with architects. The new work of the Department of Architecture promises most important results, and the personal interest of every member of the department and of the Institute is bespoken of this enterprise. Active steps are now being taken to develop the ideas embodied in the president's report.

The executive committee of the department consists of Barr Ferree, president; Henry M. Congden, vice-president; Woodruff Leeming, secretary; Albert A. Hopkins, Richard M. Upjohn, Stephen W. Dodge, Charles M. Shean, Charles M. Skinner, Gustave A. Skrzyneki.

NEW PUBLICATIONS.

A GRADUATES' magazine — *The Technology Review* — has just been issued by the recently organized Association of Class Secretaries. It is an octavo volume of 140 pages, attractive in appearance and of the best workmanship. The cover, designed by Hapgood and printed on army brown paper, is very handsome. The first number contains the Announcement; a photograph, with biographical sketch, of President Crafts; articles on "The Function of the Laboratory," by Prof. Silas W. Holman, and on the "Pierce Building," by Prof. Eleazer B. Homer, the architect; reprints in facsimile of early institute documents and letters — all in the first and more general half. The latter half, seventy pages, is given to news of the institute, of the undergraduate and graduate classes. Plans are shown of the several floors of the new Pierce building, of the first floor of the Rogers building as now altered, and of the Dynamo House. There are two half-tone inserts and two line-drawings, one by Gelett Burgess. An excellent review of Professor Holman's recent book on "Matter, Energy, Force and Work" is given by Dr. Goodwin.

OUR ILLUSTRATIONS.

Residence, Southern California.

Design for Mantel. Ernest Kaufmann, Chicago.

Photogravure Plate: Residence, New York City.

An Old English House from an Early Sketch, by E. Eldon Deane.

Bar Association Building, New York. Cyrus L. W. Eidlitz, architect.

Y. M. C. A. Building, Portland, Maine. Frederick A. Thompson, architect.

Lower Stories, Fahy's Building, New York. Clinton & Russell, architects.

Manoir at Port en Bessin, France. Rendered from photograph by D. A. Gregg.

Biological Building, Ohio State University. Yost & Packard, architects, Columbus, Ohio.

Stairway, Grand Opera House, Paris. Charles Garnier, architect. Three views are shown.

View in Hall, Residence of Mrs. J. Milbank, Greenwich, Connecticut. Lamb & Rich, architects, New York.

The Assumption School for Italians, situated on Erie street, between Franklin and Market streets, Chicago, Fritz Foltz, architect, is to be used as a parochial school in connection with the Church of the Assumption, Rev. Father Thomas Moreschini, rector. This building contains twelve schoolrooms, accommodating six hundred pupils, and has an entertainment hall containing about seven hundred seats, and a small theatrical stage, with a gallery, on the top floor. The building is to be finished entirely in oak, and is to be supplied with modern plumbing, steam heat, ventilating apparatus and school seatings. The price of the whole building is about $27,000, complete.

PHOTOGRAVURE PLATES.

Issued only with the Photogravure Edition.

Quadrangle Club, Chicago. Rebuilt by Howard Shaw, architect.

The Frances E. Willard School, Chicago. Normand S. Patton, architect.

Residence of Mr. Furbeck, Oak Park, Illinois. Frank L. Wright, architect.

St. Paul's German Evangelical Lutheran Church, Chicago, Illinois. Hill & Woltersdorf, architects. In a Protestant evangelical church, the main feature of the service is the sermon, and it is therefore essentially necessary to concentrate the worshipers around altar and pulpit, to not disturb the clear vision to altar and pulpit by isolated columns, or otherwise, and to assure good acoustics throughout the auditorium. To accomplish this, and considering the shape of the lot, which is nearly square, the architects decided to make the center predominating in the ground plan by a large octagon, which is crowned by a gracefully groined dome 62 feet high. The octagon has short diagonal solid sides, while to the open main sides are attached the nave and transepts, vaulted over with cross-groined ceiling springing from the main semi-circular arches. The tall octagonal spire, in the character of a flèche, projects directly over the center of the octagon, thus designating on the exterior the center of the auditorium within. The walls of the auxiliary stairways, which on the outside terminate in octagonal pinnacles, give strength to the main corners for the safe support of the steel dome to which the central spire is attached. The arrangement of the different entrances and stairways secures the easy and noiseless assembling of the worshipers. The following full-page views are shown: Exterior, View of Auditorium, View in Vestibule, Detail of Entrance.

MOSAICS.

The large amount of engineering work which has been placed in the hands of Westinghouse, Church, Kerr & Co. during the past two or three years has led to a large increase in their force of engineers and other assistants, and involved changes in the position of those who have been long with this concern; chief among these is the appointment of W. W. Churchill to the position of mechanical engineer. Mr. Churchill has been closely associated with all of the largest engineering work of Westinghouse, Church, Kerr & Co., including the Boston Terminal and the Third Avenue Railway power plants, and well deserved the place and title which has been given him. He is a graduate of Cornell University of the class of '89, and has been with Westinghouse, Church, Kerr & Co. some nine years, he having remained at Cornell one year as Sibley Fellow in Mechanical Engineering.

The growth of the business of Westinghouse, Church, Kerr & Co., engineers, reaching as it does into many departments and large transactions, has necessitated the providing of additional assistance in the handling of the general affairs as distinct from the daily management of the business of the respective offices. It is the custom of this concern, as far as possible, to advance men from their own ranks, and recently the scope of the duties of Mr. Henry J. Conant, manager of the Boston office, has been increased, and while he will continue to reside in Boston, his work will be of a broader nature and be connected with the general affairs of the concern. Mr. Conant has of late been particularly well known in connection with the execution of the large general engineering contract at the new Boston Terminal, of which he had complete charge in both management and engineering. He is a graduate of the Massachusetts Institute of Technology, of the class of '87, and by his many years of work with Westinghouse, Church, Kerr & Co. is peculiarly well fitted for the larger duties now intrusted to him.

ASSOCIATION NOTES.

NEW JERSEY SOCIETY OF ARCHITECTS.

The New Jersey Society of Architects held its annual meeting Friday, January 6, 1899, at 842-844 Broad street, Newark, New Jersey, and elected the following officers for the ensuing year: President, Paul G. Botticher, Newark, N. J.; first vice-president, James H. Lindsley, Newark, N. J.; second vice-president, Robert C. Dixon, Jr., Township of Union, N. J.; secretary and treasurer, George W. Von Arx, Jersey City, N. J. (reëlected). Trustees for three years — Albert Beyer, Hoboken, N. J., and Henry C. Klemm, Newark, N. J.

BALTIMORE ARCHITECTURAL CLUB EXHIBITION.

A notable exhibition of architectural drawings, exhibited by the Baltimore Architectural Club, has just closed in Baltimore in a small but interesting collection of the drawings of David Gregg, of Boston. Though Gregg's work is too well known to require extended description, it is pleasant to note the work of this artist, as it shows the highest type of the art of architectural illustration. The exhibits included sketches in black-and-white, and in wash and color, and were as delightful to the lay visitor because of their artistic composition and backgrounds as to the architect for their fine portrayal of architectural lines.

WASHINGTON CHAPTER A. I. A.

The Washington Chapter of the American Institute of Architects met recently in the Octagon building. Senator McMillan's bill providing for a site and for the construction of the public library which Mr. Carnegie has offered the city was discussed. The objectionable features, from the architects' point of view, were considered. An amendment was adopted, and this will be sent the senator with the request that it be embodied in the bill. The amendment provides that all of the proposed ten competing architects who will submit designs shall be adequately compensated for their services, and that the successful one shall have entire control of the building; shall be paid according to the schedule adopted by the American Institute, and that there shall also be a clerk of the works, whose compensation shall come out of the money available for the erection of the building.

THE T-SQUARE CLUB EXHIBITION.

The 360 drawings comprising the T-Square Club Exhibition of 1899, made in connection with the Academy of Fine Arts, show an improvement in selection and an increased variety of subjects. The catalogue shows this and is of itself an advance upon all previous issues by the club, and contains some especially unique features. It has been compiled by the secretary of the club, Mr. Albert Kelsey, and takes the form of a work of reference or an architects' year book. Besides the usual list of contributors and selected illustrations, it includes a review of events of importance to the members of the club, summarizes the work of the art section of the Civic Club, the Fairmount Park Association, the State Capitol Commission, the Peace Jubilee Committee and the Contemporary Club. A valuable feature, and certainly unique in catalogue compilation, is a "symposium" upon "Modern Architecture in America," contributed to by a number of the leaders in thought and practice in the profession in the United States.

OBITUARY.

GEORGE INGRAM BARNETT.

George Ingram Barnett, architect, died at St. Louis, December 29, in his eighty-fourth year. Mr. Barnett was born at Nottingham, England, March 20, 1815. His father was a Baptist minister and a writer upon political economy. Mr. Barnett was educated in the office of Thomas Hine, an architect of note; and coming to this country in 1839 settled in St. Louis, where he has since practiced his profession and has always ranked among the first of the practitioners in his city and State. To enumerate the buildings which he designed would be to record the best of the well-known structures erected during the period of his active practice, such as the Lindell Hotel, Equitable building, the old Merchants Exchange, besides many of the old and noted residences, and his work always bore the stamp of thorough knowledge and careful adherence to the best tenets of the school of design in which he was educated. Always of a warm, generous and social nature, Mr. Barnett was closely identified with all public movements and took a deep interest in the welfare of the city of St. Louis. He was one of the seventeen charter members of the old Missouri Club and a member of the Merchants Club, etc.; and when the architectural movement took the form of organized association fifteen years ago he lent it his hearty support, and in this as in all other things his fellow-architects looked with respect upon his advice and prized his counsel. Thus his long life, and upright, honest and straightforward dealings, together with his knowledge of his profession, endeared him to all those whose privilege it was to know him, and his example lives with those who now mourn his loss. St. Louis as a city has seldom been called upon to regret so valuable a citizen and the profession one so thoroughly a credit and a help in the maintenance of an art standard and a legitimate architectural practice.

Mr. Barnett leaves three sons who follow their father's profession.

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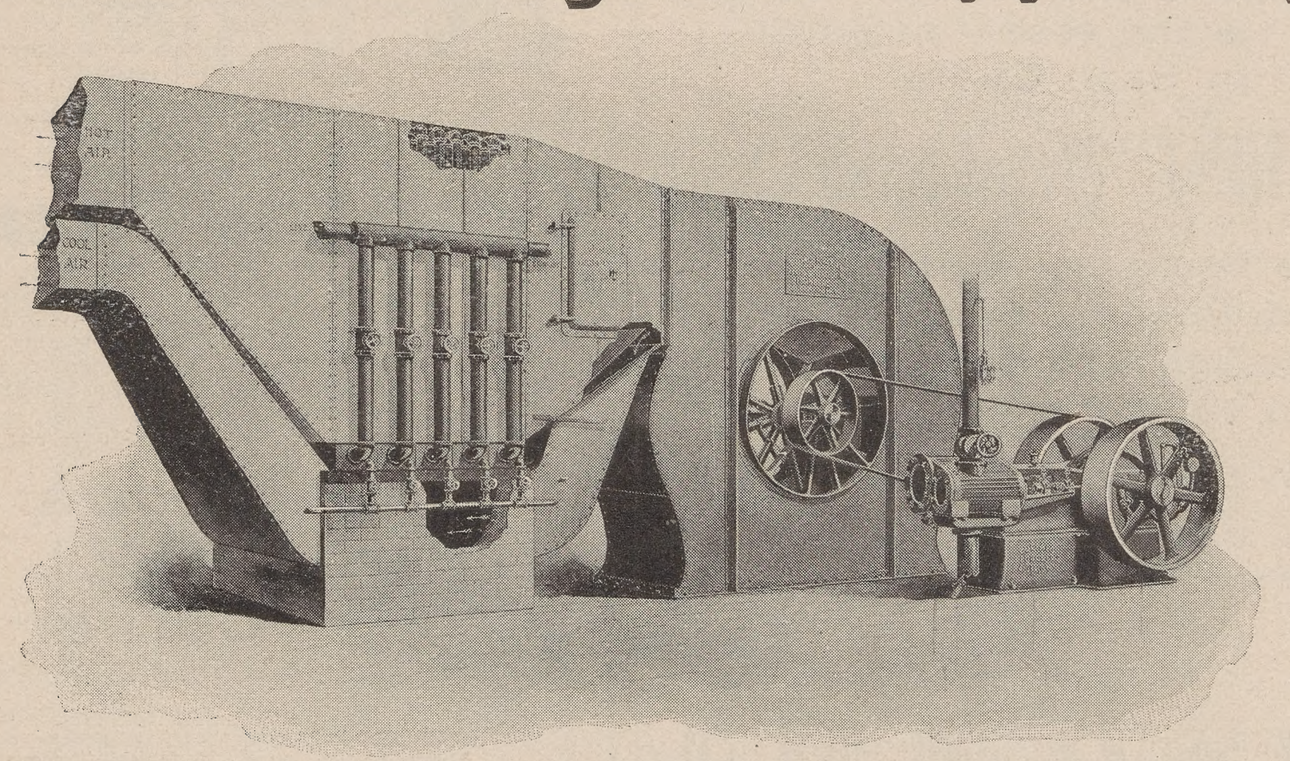

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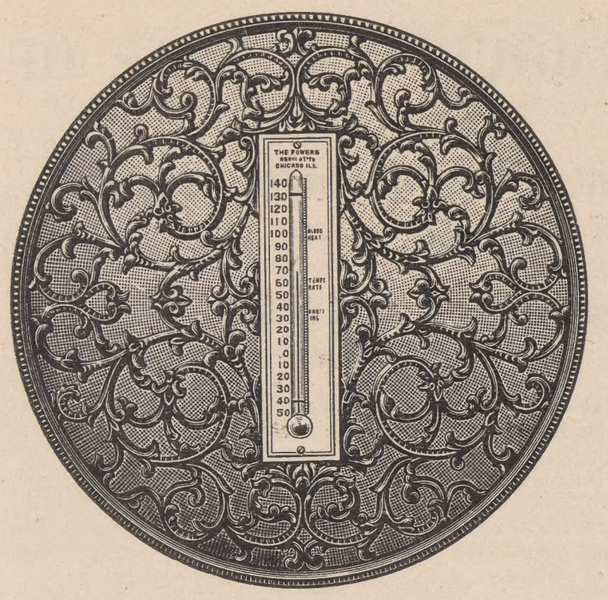

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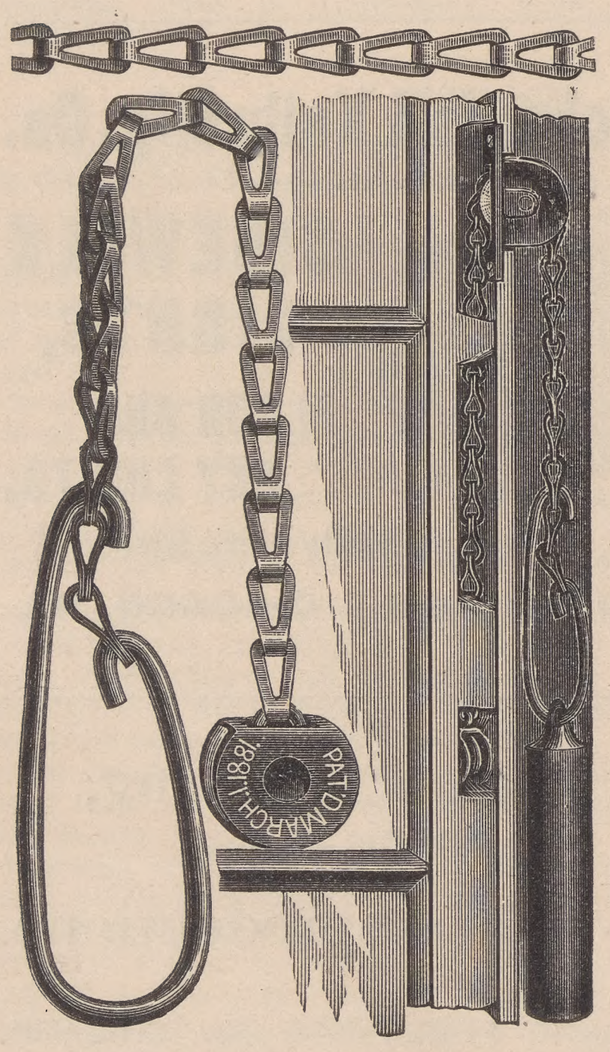

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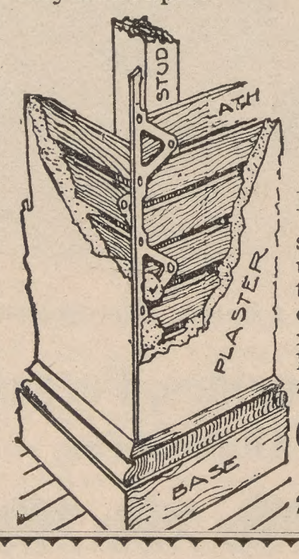

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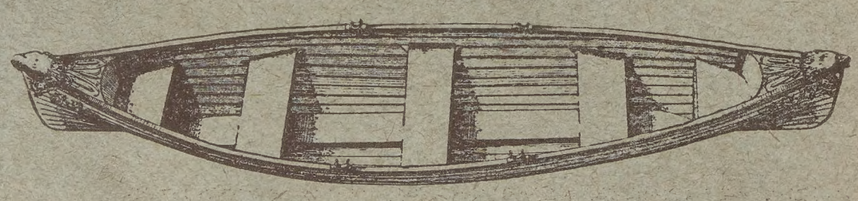

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